Downtown Circulation Study

Rocky Mount, NC

Prepared for

City of Rocky Mount, NC

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EXECUTIVE SUMMARY

The City of Rocky Mount has undertaken this study to assess the impact of altering traffic patterns in the downtown area. The changes to traffic patterns under consideration include converting one-way streets to two-way operation and closing a railroad crossing in the downtown area. The study area includes the area designated as the "Downtown Smart Growth Area" as identified in the Comprehensive Plan for the City of Rocky Mount. This area is defined by the intersection of Raleigh Road and Grace Street in the southwest; extending north on Grace Street to the intersection of Grace Street and West Grand Avenue; east on West Grand Avenue to Atlantic Avenue; south on Atlantic Avenue and Arlington Street to the intersection of Arlington Street and South George Street; across the railway overpass west on Raleigh Road back to the intersection of Raleigh Road and Grace Street. All of the one-way streets in the downtown area were candidates for conversion to two-way operation while the rail crossings at Hill Street/Western Avenue and Nash Street/Marigold Street were considered for closure in this study. The objective of this study was to assess the impact of the changes on traffic operations, pedestrian mobility, parking, and the economic viability of the downtown businesses. The findings of this report will provide vital information to the Rocky Mount city council on the decisions to improve the downtown area.

Six scenarios were developed for the analysis of future year conditions. The No-Build alternative includes the projected traffic volumes expected to occur in 2025, but does not include any changes to the existing street network in the downtown area. As part of developing the other five alternative analysis scenarios, it was determined that a number of existing one-way streets could be easily converted to two-way operation and included in most of the future year analysis scenarios. The following streets were considered feasible two-way conversions due to the local impacts and low cost of implementation:

- Trevathan Street
- Gay Street
- Howard Street
- Washington Street
- Rose Street
- Falls Road

In addition to the feasible one-way street conversions, the following one-way streets were analyzed as two-way streets in the alternative scenarios:

- Thomas Street
- Sunset Avenue/Tarboro Street
- Hill Street/Western Avenue
- Nash Street/Marigold Street
- One block of Southeast Main Street between Marigold Street and Hill Street

The following rail crossings were also considered for closure as part of the alternative scenarios:

- Hill Street/Western Avenue
- Nash Street/Marigold Street

Preliminary alternatives were developed and submitted for review by downtown stakeholders and by staff of the City of Rocky Mount. After incorporating feedback from stakeholders, five alternative scenarios were carried forward for analysis. The one-way

street conversions and rail crossing closures identified above were combined to formulate the following five alternative analysis scenarios:

- Alternative 1 – This scenario included all of the feasible street conversions, the conversion of Main Street between Hill Street and Marigold Street to two-way operation, the conversion of the one-way pair of Hill Street/Western Avenue and Nash Street/Marigold Street to two-way operation, and the closure of the rail crossing on Nash Street/Marigold Street.
- Alternative 2 – This scenario is identical to Alternative 1 with the following exceptions:
    - Washington Street and Rose Street remain one-way streets
    - Thomas Street and Sunset Avenue/Tarboro Street are converted to two-way operation.
- Alternative 3 – This scenario included all of the feasible street conversions, the conversion of the one-way pair of Hill Street/Western Avenue and Nash Street/Marigold Street to two-way operation, and the closure of the rail crossing on Hill Street/Western Avenue.
- Alternative 4 – This scenario is identical to Alternative 3 with the following exceptions:
    - Washington Street and Rose Street remain one-way streets
    - Thomas Street and Sunset Avenue/Tarboro Street are converted to two-way operation.
- Alternative 5 – This scenario included most of the feasible one-way street conversions plus the conversion of all of the major streets in the downtown area (Thomas Street, Sunset Avenue/Tarboro Street, Hill Street/Western Avenue, Nash Street/Marigold Street, Franklin Street, and Church Street) to two-way operation. However, all railroad crossings in the downtown area remain open to vehicular crossing traffic in this scenario and Washington Street and Rose Street remain as one-way streets.

Analyses were performed to assess peak hour level of service at intersections in the study area. The level of service analyses were performed for existing conditions as well as the six scenarios of future year conditions. Existing peak hour traffic volumes were increased by an annual growth rate of two percent to account for growth of background traffic in the study area. Vehicle trips were also generated for proposed land use changes in the downtown area and were added to the background traffic to estimate peak hour traffic in year 2025.

The level of service analyses indicate that the existing signalized intersections in the study area are all operating at acceptable level of service (LOS), however the analyses also suggest that the intersections adjacent to the rail crossings in the core downtown area will be most impacted by the proposed traffic pattern changes and increased traffic volumes. The resulting LOS results are summarized in the following tables.

Alternative	Intersection Operating at Unacceptable LOS (LOS E or worse)
Existing Conditions	• None
No-Build Conditions	• None
Alternative 1	• Hill Street/Western Avenue at Main Street
Alternative 2	• Sunset Avenue/Tarboro Street at Main Street • Hill Street/Western Avenue at Main Street
Alternative 3	• Nash Street/Marigold Street at Main Street
Alternative 4	• Sunset Avenue/Tarboro Street at Main Street • Nash Street/Marigold Street at Main Street
Alternative 5	• Sunset Avenue at Church Street • Sunset Avenue/Tarboro Street at Main Street

The following tables summarizes the impact of each alternative and ranks the alternatives relative to one another based on average vehicle delay and average vehicle speed.

Alternative	Average Vehicle Delay (sec/veh)				Average Rank	Overall Rank
	A.M. Peak	Rank	P.M. Peak	Rank		
No-Build Conditions	00:11	-	00:12	-	-	-
Alternative 1	00:17	1	00:19	2	1.5	**2**
Alternative 2	00:24	5	00:26	3	4	**3**
Alternative 3	00:17	1	00:14	1	1	**1**
Alternative 4	00:20	4	00:30	4	4	**3**
Alternative 5	00:19	3	00:42	5	4	**3**

Note: Alternatives are ranked 1 through 5, lowest average delay to highest average delay.

Alternative	Average Vehicle Speed (mph)				Average Rank	Overall Rank
	A.M. Peak	Rank	P.M. Peak	Rank		
No-Build Conditions	14	-	13	-	-	-
Alternative 1	11	1	10	2	1.5	**2**
Alternative 2	9	5	9	3	4	**3**
Alternative 3	11	1	12	1	1	**1**
Alternative 4	10	4	8	4	4	**3**
Alternative 5	11	1	6	5	3	**3**

Note: Alternatives are ranked 1 through 5, highest average speed to lowest average speed.

In addition to peak hour level of service analyses, future year P.M. peak hour travel times were estimated for a set of origins and destinations for comparison between the alternative scenarios. Travel times for emergency response from Fire Station 1 were also estimated for each of the future year alternatives. As reflected in the travel time estimates, the reduction in vehicular capacity crossing the railroad tracks results in increased travel times across the study area. The table below shows how the

alternatives rank relative to one another based on the estimated P.M. peak hour travel times for the origins and destinations shown.

Alternative Ranking by P.M. Peak Hour Travel Time

Origin	Destination	No-Build	Alt. 1		Alt. 2		Alt. 3		Alt. 4		Alt. 5	
		Travel Time	Travel Time	Rank	Travel Time	Rank	Travel Time	Rank	Travel Time	Rank	Travel Time	Rank
Sunset Avenue at Grace Street	Nash Street at Main Street	3:02	2:33	1	2:53	2	3:03	3	3:22	4	3:53	5
	Hill Street at Main Street	3:47	1:59	1	4:22	3	3:42	2	5:46	5	5:31	4
	Marigold Street at Main Street	3:06	2:25	1	4:48	3	3:13	2	5:03	5	6:36	4
Thomas Street at Atlantic Avenue	Nash Street at Main Street	3:05	4:16	2	5:26	3	3:07	1	6:28	4	6:31	5
	Hill Street at Main Street	3:51	3:42	1	5:11	3	3:46	2	7:21	5	5:38	4
	Marigold Street at Main Street	3:10	4:08	2	5:36	3	3:17	1	6:37	5	5:45	4
Average Rank		-	**1.6**		**2.8**		**1.8**		**4.6**		**4.3**	
Overall Rank		-	**1**		**3**		**2**		**5**		**4**	

Note: Alternatives are ranked 1 through 5, least travel time to most travel time.

Emergency vehicles are affected by changes to the downtown street operations just as other vehicles traveling in the downtown area. Analysis of estimated peak hour travel times for emergency vehicles from Fire Station 1 to the intersection of Thomas Street and Church Street indicate that Alternatives 3 and 4 would have the most significant impact on travel time. The table below ranks the alternatives relative to one another based on the estimated P.M. peak hour travel times between Fire Station 1 and the intersection of Thomas Street and Church Street. While the results indicate an increase in travel time, responding to the intersection of Thomas Street and Church Street constitutes the worst-case scenario in terms of travel time and distance from Fire Station 1. It also must be recognized that the travel times reported are for the P.M. peak hour. Travel times during off-peak periods would not be expected to reach these levels.

Alternative Ranking by Fire Station 1 P.M. Peak Hour Travel Time

Origin	Destination	No-Build	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
Fire Station 1	Thomas Street at Church Street	2:42	4:28	4:11	5:11	6:07	3:48
Rank		-	**3**	**2**	**4**	**5**	**1**

Note: Alternatives are ranked 1 through 5, least travel time to most travel time.

Simtraffic analysis outputs indicate that the conversion of the east-west streets to two-way operation will result in significant increases in traffic queues on the approaches to

Main Street. The table below shows the how the alternatives rank relative to one another based on estimated P.M. peak hour traffic queues.

Alternative Ranking by P.M. Peak Hour Traffic Queues at Main Street

Street	No-Build		Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
Thomas St	-	115’	-	75’	25’	200’	-	115’	160’	235’	100’	120’
Sunset Ave/Tarboro St	180’	-	55’	-	340’	210’	100’	-	385’	205’	345’	235’
Western Ave/Hill St	-	145’	385’	240’	220’	280’	-	-	-	-	100’	245’
Nash St/Marigold St	55’	-	-	-	-	-	305’	160’	285’	175’	75’	75’
Average Queue	118’	130’	220’	158’	195’	230’	203’	138’	277’	205’	155’	169’
Rank by Direction	-	-	4	2	2	5	3	1	5	4	1	3
Average Rank	-		3		3.5		4		4.5		2	
Overall Rank	-		2		3		4		5		1	

Notes: [1] The average block lengths along the east-west streets are 400’ for the eastbound streets and 270’ for the westbound streets.
[2] Alternatives are ranked 1 through 5, shortest queues to longest queues

Some general conclusions can also be made concerning traffic circulation and access. Either of the rail crossings under consideration for closure will significantly impact traffic circulation in the downtown area. Closing either of the railroad crossings under consideration would also require the conversion of Hill Street/Western Avenue and Nash Street/Marigold Street to two-way operation. In addition, it may be desirable to convert a block of Main Street to two-way operation to maintain an acceptable level of accessibility should the Nash Street/Marigold Street crossing be closed.

Closing the railroad crossing on Hill Street/Western Avenue would have less impact on the counterclockwise traffic circulation in the downtown than will closing the railroad crossing on Nash Street/Marigold Street. If the railroad crossing on Hill Street/Western Avenue were closed, then the existing counterclockwise circulation pattern would remain intact. However, if the Nash Street/Marigold Street rail crossing were closed, the existing counterclockwise circulation pattern would be interrupted and shortened by a block, significantly impacting the accessibility to the land uses on the block of Main Street between Hill Street/Western Avenue and Nash Street/Marigold Street.

Analyses were also performed to assess the relative economic impact of each alternative. The analyses included interviewing the downtown stakeholders to assess the current business climate in the downtown area and to gauge the economic future of the downtown area. A model was developed to assess the relative economic impacts of

each alternative based on the prevailing traffic patterns created by each alternative. The conclusions of the economic analysis is summarized below:

- Other factors besides traffic will likely influence retail sales more than traffic modifications
- By diverting additional traffic onto Main Street, Alternative 3 and Alternative 4 could potentially generate higher design year retail sales than the No-Build scenario
- Alternatives 3 and 4 create a positive impact and are projected to exceed No-Build retail sales by $7.8 million and $8.8 million or 14.1% and 15.9% respectively (average annual change of 0.6% and 0.7% respectively)
- Alternatives 1, 2, and 5 are projected to generate fewer design year retail traffic and sales than the No-Build scenario decreasing sales by $3.0 million, $2.4 million, and $3.6 million or 5.5%, 4.5%, and 6.5% respectively (average annual changes of 0.25%, 0.20%, and 0.29% respectively)
- All alternatives generate slightly more retail traffic than No-Build in the general area between the intersections of Main Street with Sunset Avenue and Hill Street/Western Avenue with Alternatives 3 and 4 generating moderately more retail traffic

The table below summarizes the impact of each alternative on retail sales in the downtown area.

	No-Build	**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 4**	**Alternative 5**
Annual Retail Sales	$55.5 M	$52.5 M	$53.0 M	$63.40 M	$64.37 M	$51.0
Rank	**-**	**4**	**3**	**2**	**1**	**5**

Implementation costs for the improvements required for each alternative were developed. The preliminary cost estimates include items ranging from the cost of upgrading pavement markings in order to accommodate two-way traffic to realigning a portion of Sunset Avenue and Thomas Street in the vicinity of City Lake to facilitate the conversion of Sunset Avenue and Thomas Street to two-way operation. Cost estimates across the five (5) build alternatives range from $600,000 to $2,300,000.

Alternative Ranking by Implementation Cost

Alternative	**Anticipated Implementation Cost**	**Rank**
Alternative 1	$670,000	**2**
Alternative 2	$1,900,000	**4**
Alternative 3	$600,000	**1**
Alternative 4	$1,800,000	**3**
Alternative 5	$2,300,000	**5**

Findings

A number of measures were developed in this study to assess the impact of each alternative on traffic operations in the downtown area. The alternatives have been ranked relative to one another based on each of these measures. The table below summarizes those rankings based on average vehicle delay, average vehicle speed, average P.M. peak hour traffic queues at Main Street, average P.M. peak hour travel time between specified origins, average P.M. peak hour travel times between Fire Station 1 and the intersection of Thomas Street and Church Street, anticipated Implementation Costs, and impact on retail traffic.

Overall Alternative Ranking

Alternative	Average Vehicle Delay	Average Vehicle Speed	Average P.M. Peak Hour Queues	Average P.M. Peak Hour Travel Times	Average Fire Station 1 P.M. Peak Hour Travel Times	Anticipated Implementation Cost	Impact on Retail Traffic	Average Ranking	Overall Ranking
1	2	2	2	1	3	2	4	2.3	**2**
2	3	3	3	3	2	4	3	3.0	**3**
3	1	1	4	2	4	1	2	2.1	**1**
4	3	3	5	5	5	3	1	3.6	**5**
5	3	3	1	4	1	5	5	3.1	**4**

In comparison to the No-Build scenario, all of the future year alternatives result in increased delays and travel times. The level of service analyses indicate that the intersections adjacent to the railroad tracks on Main Street are the most impacted by the proposed traffic pattern changes. Converting streets from one-way operation reduces the capacity to move vehicles through the downtown area, increases travel delays, and could possibly result in traffic diverting around downtown. In addition, closing one of the four railroad crossings in the downtown area significantly disrupts existing traffic patterns in the area, impairs mobility, reduces accessibility, increases delays, and raises the likelihood that motorists will divert around downtown during peak travel periods.

Estimates of P.M. peak hour travel time indicate that as more of the east-west streets are converted to two-way operation, travel time through the study area will increase. This is due to the loss of capacity at the intersections adjacent on Main Street and the loss of a travel lane in each direction for carrying vehicles.

In terms of economic impact, analyses indicate that Alternative 3 and Alternative 4 would generate more retail traffic than the No-Build alternative while Alternative 1, Alternative 2, and Alternative 5 would generate slightly less retail traffic than the No-Build Alternative.

Recommendations

This report includes a relatively detailed evaluation of the implications of closing one of the existing at-grade railroad crossings and the conversion of one-way streets to two-way operation in the downtown area. However, in addition to the impacts measured in this report, there are a wide range of other impacts that must factor into any decision concerning changes to traffic circulation in the downtown study area. With that said, the

intent of this study is to quantify the impacts of the various alternatives under consideration in terms of traffic operations and economic impact and to compare the alternatives to one another based on those impacts.

The alternatives considered in this study result have varying impacts on traffic operations and the economic outlook in the downtown area. However, based on the results of the analyses in this study, Alternative 3 ranks the highest in comparison to all the other alternatives. If implemented, Alternative 3 would be expected to result in increased delay in the study area, but it is expected to have a positive impact on retail traffic in the downtown area and to have the lowest implementation cost of all the alternatives considered.

The improvements required to implement Alternative 3 are estimated to cost $600,000. Alternative 3 requires the following improvements:

- Remove the traffic signal and railroad crossing devices at the intersection of Hill Street/Western Avenue,
- Upgrade 12 signalized intersections along Nash Street/Marigold Street and Hill Street/Western Avenue between George Street and Grace Street to accommodate two-way traffic,
- Upgrade the railroad protection devices (gates and flashers) at Nash Street/Marigold Street to accommodate two-way traffic,
- Remove the traffic signal at Hill Street and Washington Street,
- Reconstruct the intersection of George Street and Marigold Street to increase the turning radius for fire trucks turning right from George Street onto Marigold Street,
- Install pavement markings along Nash Street/Marigold Street and Hill Street/Western Avenue and upgrade pavement markings at signalized intersections from George Street to Grace Street in order to accommodate two-way traffic.

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1.0 INTRODUCTION

The City of Rocky Mount has undertaken this study to assess the impact of altering traffic patterns in the downtown area. The changes to traffic patterns under consideration include converting one-way streets to two-way operation and closing a railroad crossing in the core downtown area. The study area includes the area designated as the "Downtown Smart Growth Area" as identified in the Comprehensive Plan for the City of Rocky Mount. This area is defined by the intersection of Raleigh Road and Grace Street in the southwest; extending north on Grace Street to the intersection of Grace Street and West Grand Avenue; east on West Grand Avenue to Atlantic Avenue; south on Atlantic Avenue and Arlington Street to the intersection of Arlington Street and South George Street; across the railway overpass west on Raleigh Road back to the intersection of Raleigh Road and Grace Street. All of the one-way streets in the downtown area were candidates for conversion to two-way operation while the rail crossings at Hill Street/Western Avenue and Nash Street/Marigold Street were considered for closure in this study. The objective of this study was to assess the impact of the changes on traffic operations, pedestrian mobility, parking, and the economic viability of the downtown businesses for five alternative scenarios. The horizon year is 2025.

Preliminary alternatives were developed and submitted for review. After incorporating feedback from stakeholders in the downtown area, five alternative scenarios were carried forward for analysis. The one-way street conversions and rail crossing closures were combined to formulate the following five alternative analysis scenarios:

- Alternative 1 – This scenario included all of the feasible street conversions, the conversion of Main Street between Hill Street and Marigold Street to two-way operation, the conversion of the one-way pair of Hill Street/Western Avenue and Nash Street/Marigold Street to two-way operation, and the closure of the rail crossing on Nash Street/Marigold Street.
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    - Washington Street and Rose Street remain one-way streets
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    - Washington Street and Rose Street remain one-way streets
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- Alternative 5 – This scenario included most of the feasible one-way street conversions plus the conversion of all of the major streets in the downtown area (Thomas Street, Sunset Avenue/Tarboro Street, Hill Street/Western Avenue, Nash Street/Marigold Street, Franklin Street, and Church Street) to two-way operation. However, all railroad crossings in the downtown area remain open to vehicular crossing traffic in this scenario and Washington Street and Rose Street remain as one-way streets.

2.0 EXISTING CONDITIONS

This section describes the existing streets and land uses in the study area. The study area includes the area designated as the "Downtown Smart Growth Area" as identified in the Comprehensive Plan for the City of Rocky Mount. This area, shown in Figure 1, is defined by the intersection of Raleigh Road and Grace Street in the southwest; extending north on Grace Street to the intersection of Grace Street and West Grand Avenue; east on West Grand Avenue to Atlantic Avenue; south on Atlantic Avenue and Arlington Street to the intersection of Arlington Street and South George Street; across the railway overpass west on Raleigh Road back to the intersection of Raleigh Road and Grace Street. The majority of the land uses in the study area are retail, commercial, and government.

STREETS AND TRAFFIC

Average Annual Daily Traffic (AADT) data for the roads in the study area were obtained from the North Carolina Department of Transportation (NCDOT). The most recent AADT counts from the NCDOT are for 2001. Figure 2 and Figure 3 provide schematic diagrams of the roadways in the study area including the existing intersection geometrics and peak hour turning movement volumes.

Thomas Street and Sunset Avenue/Tarboro Street

- These streets form a one-way pair in the northern half of the study area running in the east-west direction and are designated as Business Route US 64. Both streets have three-lane cross-sections through the study area and have a posted speed limit of 25 miles per hour. The 2001 AADT on Thomas Street was between Church Street and Southwest Main Street was 4,700 vehicles per day (VPD). The 2000 AADT on Sunset Avenue at the CSX railroad crossing was 5,100 VPD.

Hill Street/Western Avenue and Nash Street/Marigold Street

- These streets form a one-way pair in the southern half of the study area running in the east-west direction. Both streets have two-lane to three-lane cross-sections through the study area and have a posted speed limit of 25 miles per hour (MPH). These streets provide access to residential areas east and west of the downtown area.

Main Street

- Main Street operates as a one-way pair of streets in the downtown area separated by railroad tracks and provides local access to the shops in the downtown area. Two travel lanes are provided in each direction with angled, on-street parking. Main Street intersects the east-west streets forming very closely spaced intersections at the railroad tracks.

Franklin Street and Church Street

- These streets form a one-way pair in the western section of the study area running in the north-south direction. Both streets have three-lane cross-sections through the study area and have a posted speed limit of 25 MPH and are designated as Business Route US 301.

Washington Street and Rose Street

- These streets form a local one-way pair between Tarboro Street and Thomas Street with a posted speed limit of 25 MPH. On-street parking is provided on these streets. South of Sunset Avenue, Washington Street is a two-way street with on-street parking provided.

Arlington Street/Atlantic Avenue

- This street marks the eastern boundary of the study area. The street has a four-lane cross-section with a posted speed limit of 25 and 35 MPH.

Trevathan Street

- This street is actually outside of the defined study area. The street is a one-way street with on-street parking provided.

Gay Street

- This street is a one-way street in the northwestern section of the study area providing local access to commercial land uses.

Howard Street

- This street is a north-south one-way street providing one-way access between Western Avenue and Sunset Avenue west of Southwest Main Street. The land uses along this street are primarily commercial and retail.

Falls Road

- This street is a north-south one-way street providing one-way access between Goldleaf Street and Thomas Street in the northern section of the study area. This street provides access from areas north of the downtown area.

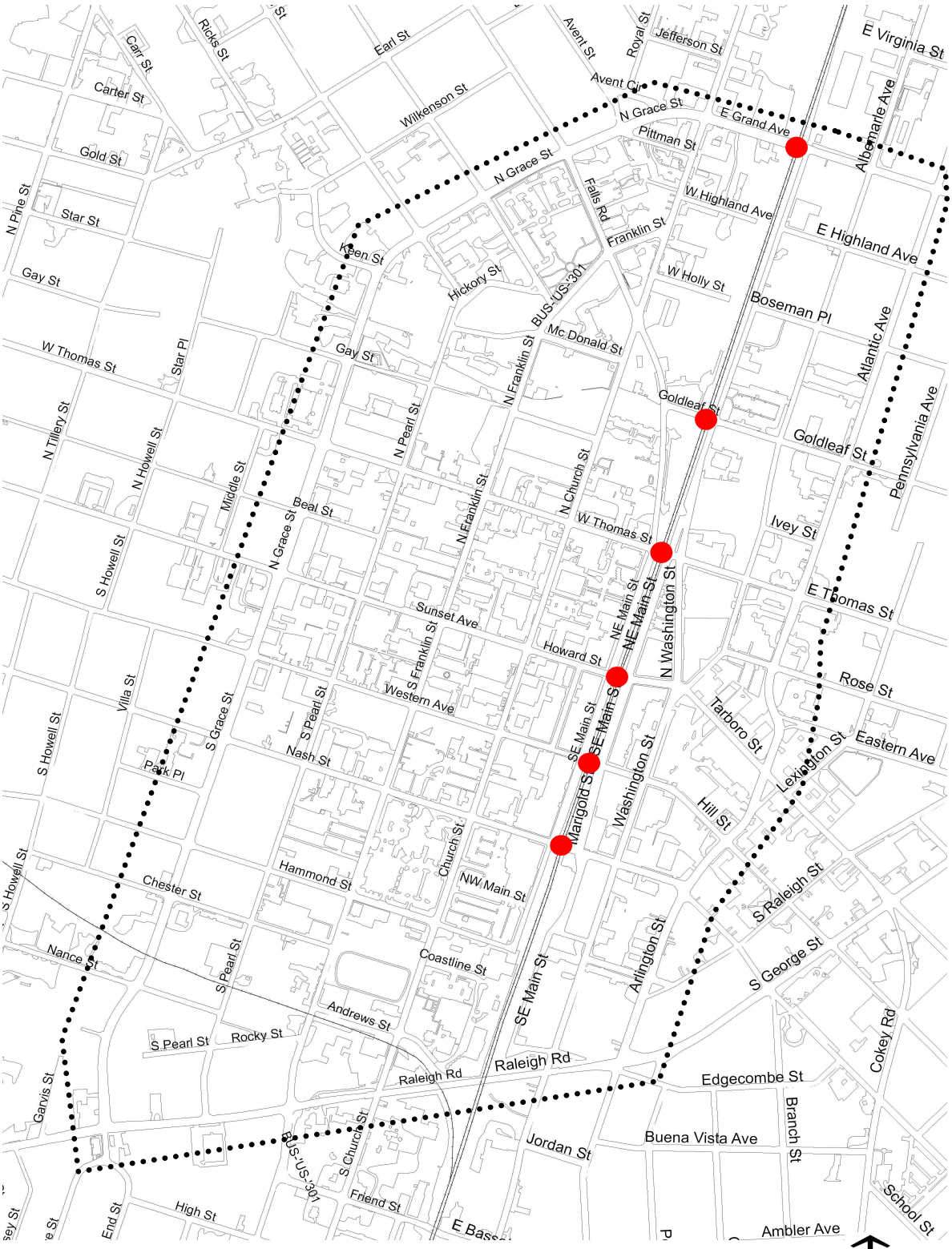
Peak hour intersection volumes were provided by the City of Rocky Mount. The data, which was collected during 2003, provided A.M. and P.M. peak hour intersection traffic volumes in fifteen-minute increments. The traffic volumes were utilized to assess existing peak hour level of service and served as the basis for estimating future year turning movements. The peak hour traffic volume data, as well as the AADT data for the study area, is provided in Appendix B.

The existing intersection turning movement data indicates that the majority of the traffic approaching the railroad crossings from the east and west is traveling through downtown without diverting onto Southwest Main Street or Southeast Main Street. The existing A.M. peak hour and P.M. peak hour traffic volumes are shown in Figure 2 and Figure 3.

CSX RAILROAD

Over 40 trains pass through downtown each day.

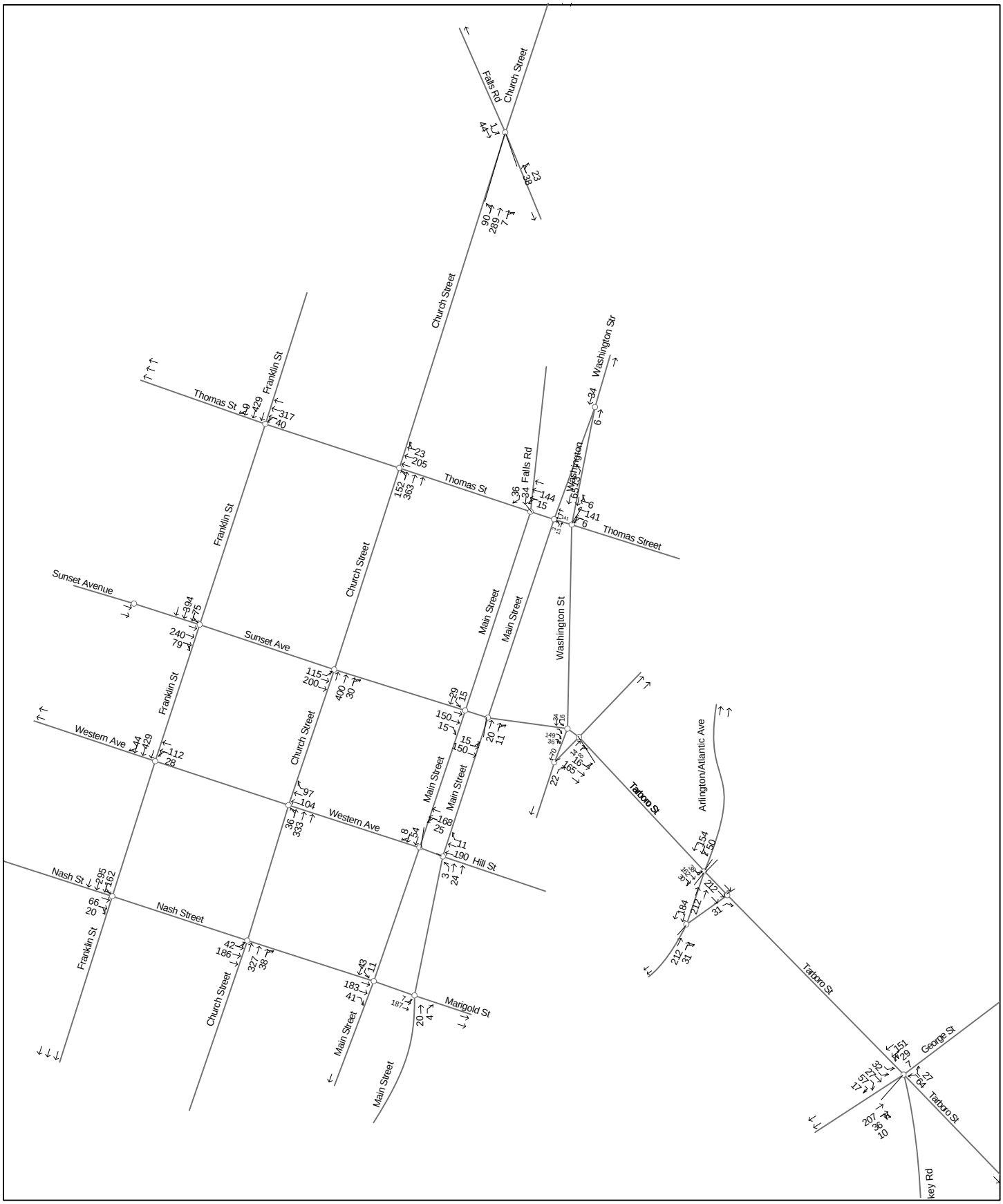
A CSX railroad line is oriented north-south passing through the downtown area. The at-grade crossings are controlled by traffic signals, gates, and flashers. According to signal pre-emption data, the average duration of the closures of the railroad crossings vary from an average minimum of approximately 1:37 to an average maximum of approximately 2:36. During the period of March 1, 2005, through March 7, 2005, the railroad crossings at Main Street were closed for trains to pass through nearly 300 times, an average of approximately 40 times each day. The overall average duration of the closures was 2:09. The railroad crossings are indicated in Figure 1 and the rail crossing data is provided in Appendix A.



Martin Alexiou Bryson	**Figure 1** **Study Area Map**	**Rocky Mount Downtown Circulation Study**

Existing A.M. Peak Hour
Traffic Volumes

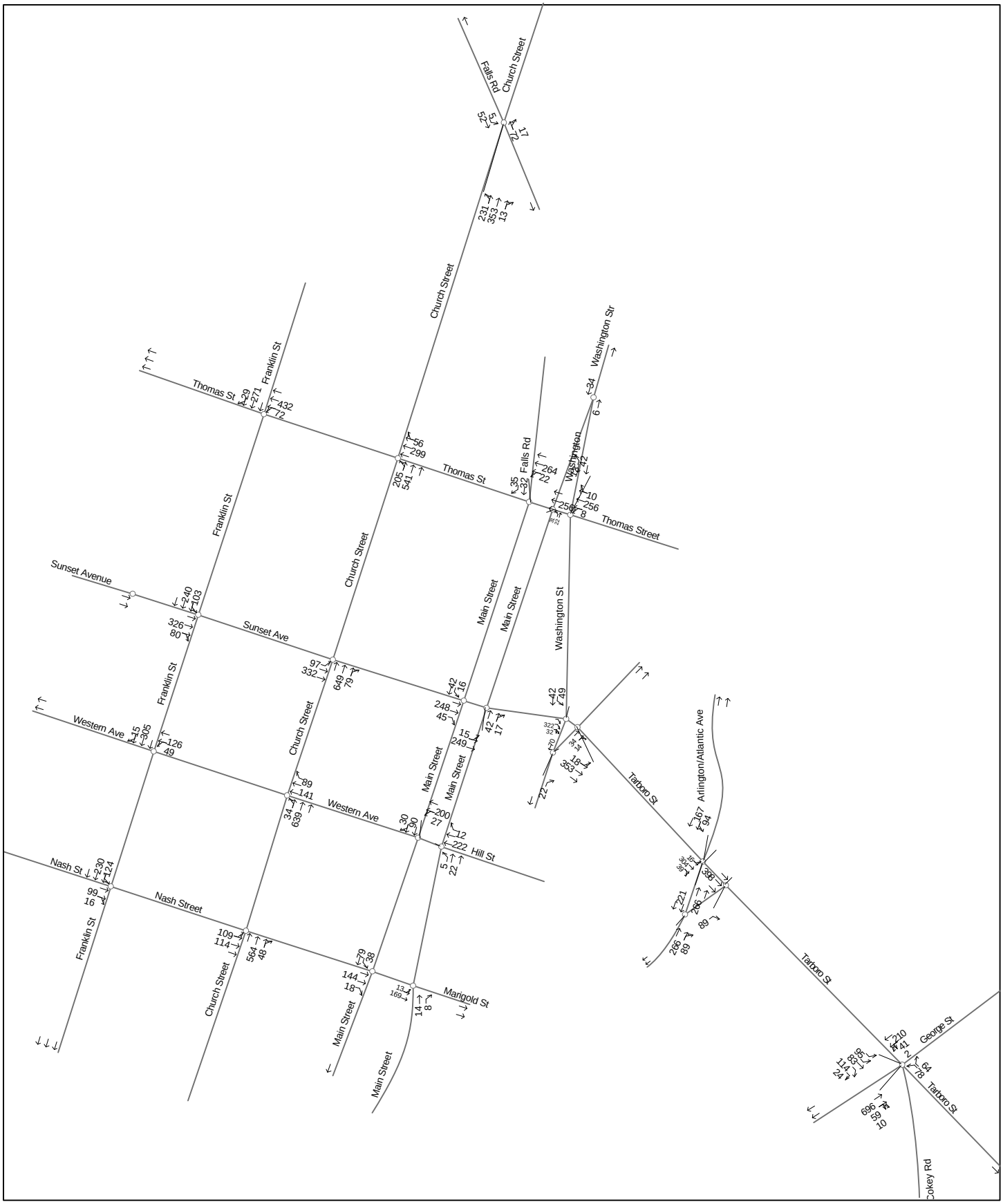
Figure 2



Rocky Mount Downtown Circulation Study

Existing P.M. Peak Hour
Traffic Volumes

Figure 3



Rocky Mount Downtown Circulation Study

3.0 LAND USE, FUTURE YEAR (2025) TRIP GENERATION, AND DISTRIBUTION

LAND USE

The proposed land use is a vital component of the analyses of future year traffic conditions as well as the analysis of the economic impact in the downtown area. The City provided projected land use data for each block in the downtown area. The following land use types are proposed in the downtown area:

- Residential
- Industrial
- Transportation
- Commercial
- Public
- Office
- Parks
- Multi-use

Only the blocks indicated in Figure 3 were included for trip generation in this study. The following assumptions were made concerning residential, industrial, and multi-use land uses.

- o Two-thirds of the square footage designated as multi-use was assumed to be retail, while the remaining one-third square footage was assumed to be office space.
- o Residential units were assumed to be 1,000 square feet in size.
- o Commercial development was designated as specialty retail for the purposes of trip generation.
- o An occupancy rate of 85% was assumed for the residential, commercial, and office space.

Table 1 Detailed Land Use By Block

Block Number	Residential Units[1]	Commercial[1] (square feet)	Public (square feet)	Office[1] (square feet)
101	27	4,900	55,642	6,877
103	33	15,259	54,192	30,518
104	16	10,042	0	20,084
105	33	22,290	0	29,398
106	33	10,892	20,271	21,784
107	38	21,069	2,264	32,100
108	55	21,817	18,634	43,633
109	26	10,459	0	20,917
111	0	14,292	0	28,585
110	0	0	0	0
112	0	43,406	0	7,235
113	0	2,742	0	5,483
114, 115, & 116[2]	59	36,359	16,700	0
313	0	0	144,552	0
Totals	320	213,527	312,255	246,614

1 – Assumes 85% occupancy.
2 – Douglas Block.

TRIP GENERATION

A.M. peak hour and P.M. peak hour vehicle trips were generated only for blocks within the core downtown area. It was assumed that trips generated by the proposed downtown businesses and other land uses would be in addition to the existing business related trips. Table 3 includes a summary of the trip generation and detailed land use data for each block is included in Appendix C. Most of the trip generation rates utilized in this study were derived from the ITE Trip Generation Manual 7th Edition.

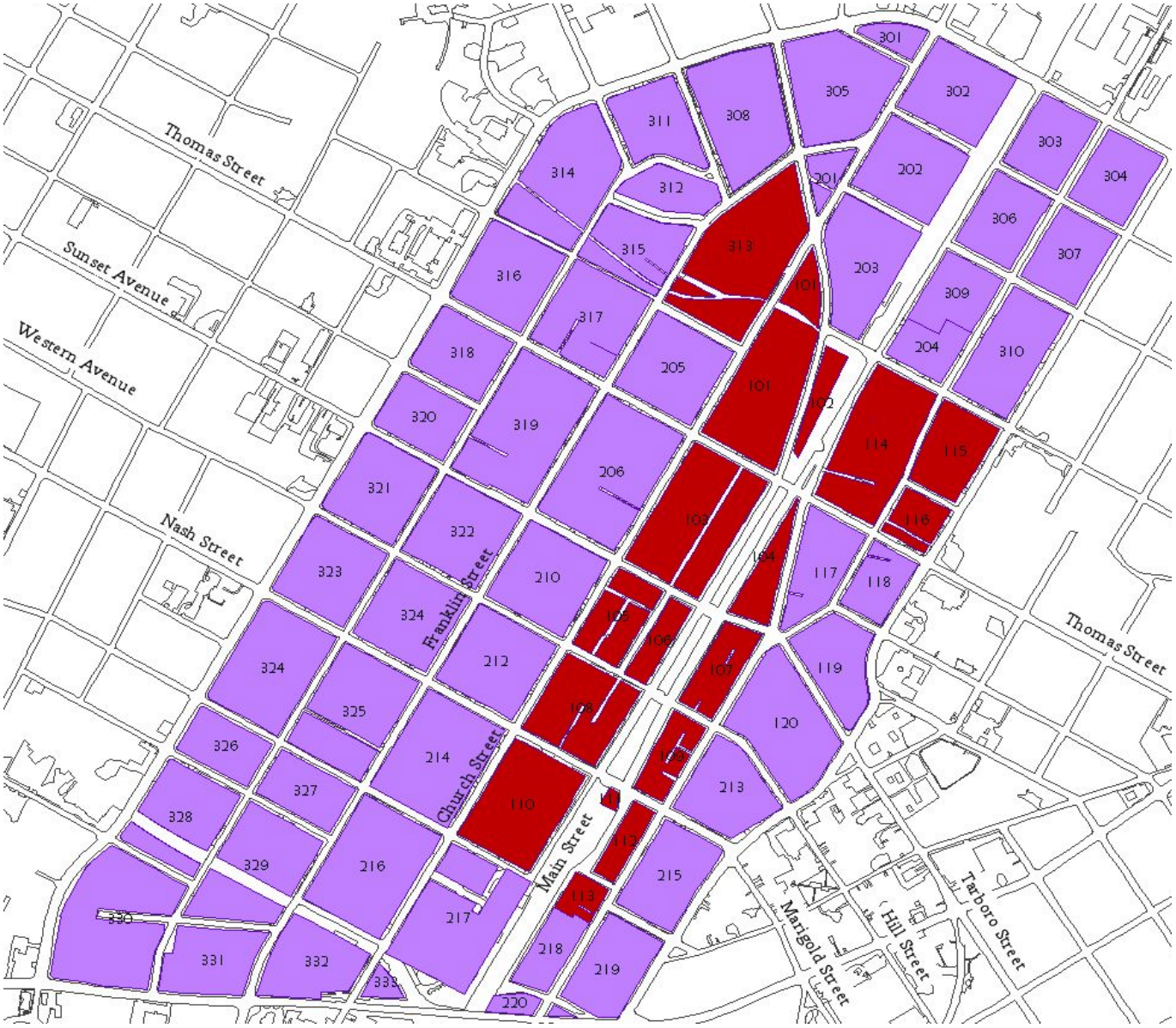
In cases where applicable trip generation rates are not included in the ITE Trip Generation Manual, data were obtained from similar facilities in other jurisdictions to estimate trip generation. For example, the City of Rocky Mount proposes to build an expanded Children's Museum in the downtown area. Trip rates for children's museums are not included in the ITE Trip Generation Manual; therefore data obtained from websites and staff members of similar facilities were used to estimate daily trips. In order to estimate peak hour trips, trip generation rate information from the ITE Trip Generation Manual for libraries was used to estimate the ratio of peak hour trips to daily trips. That ratio was then utilized to estimate the peak hour trips for children's museums. Table 3 summarizes the trip generation for the blocks of interest in the downtown area.

Buildings on Main Street are slated for renovations.

Table 2 Trip Generation Summary by Block

Block Number	AM Peak Hour Trips	PM Peak Hour Trips
101	97	78
103	207	143
104	109	66
105	213	124
106	132	131
107	215	134
108	253	202
109	118	75
111	142	81
110	0	0
112	308	129
113	27	15
114, 115, & 116	278	135
313	49	326
Totals	2148	1639

Details of the land use and related trip generation are included in Appendix C.



Blocks used for future year trip generation.

N

Not to Scale

Martin Alexiou Bryson	**Figure 4** **Downtown Blocks**	**Rocky Mount Downtown Circulation Study**

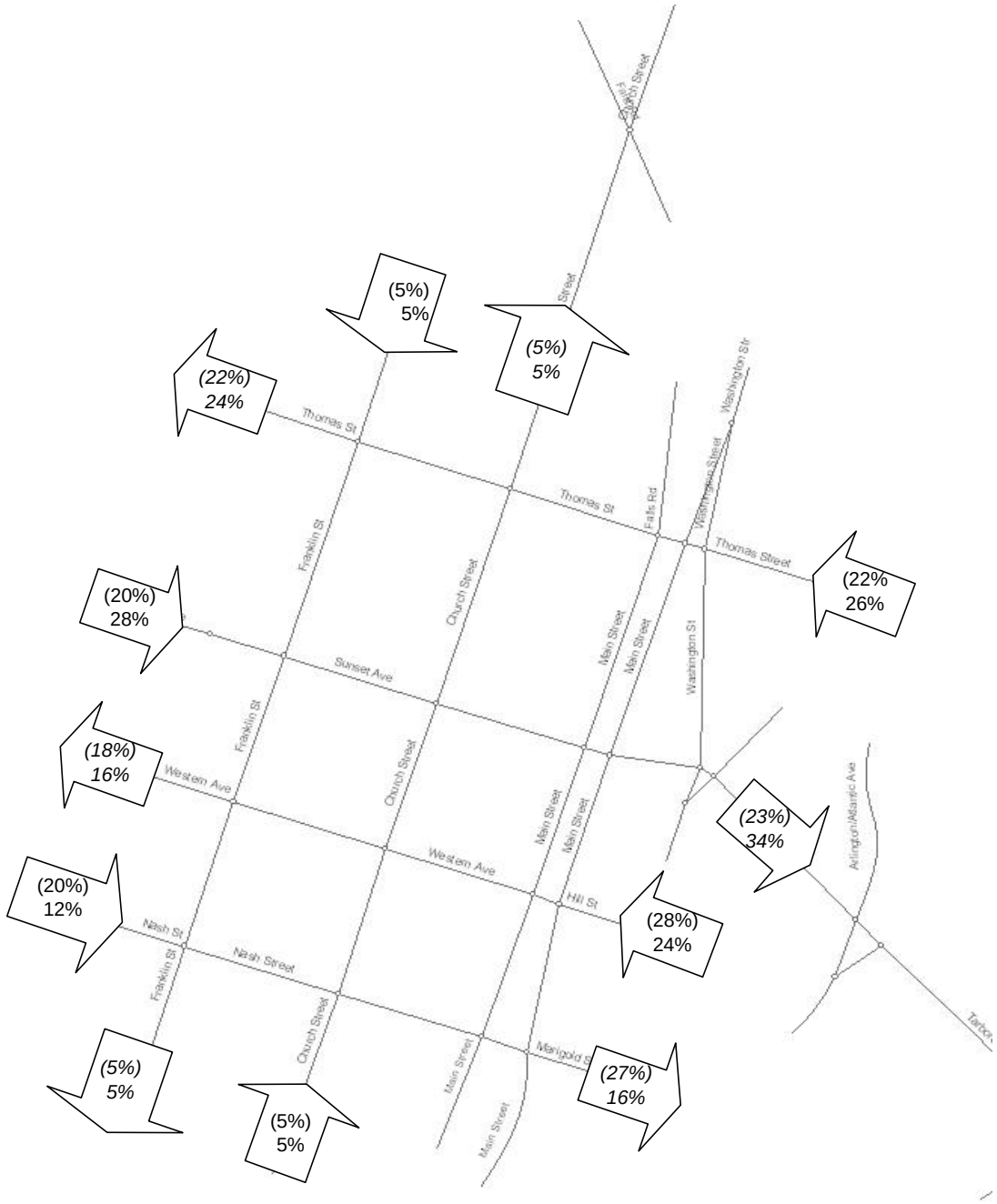
TRIP DISTRIBUTION

In order to assess the economic impact of each alternative, phone surveys were conducted with the business owners in the downtown area. Based on those survey results, it was estimated that 50 percent of the existing downtown business trips are generated in Nash County and 50 percent is generated in Edgecombe County. Therefore, as a beginning point in distributing the traffic generated by the proposed land uses, it was assumed that 50 percent of the traffic would be attributed to Nash County and 50 percent of the traffic would be attributed to Edgecombe County. The trips were then distributed across the streets in the downtown area. The overall trip distribution is summarized in Table 3 and shown in Figure 5.

Table 3 Trip Distribution Percentages

Approach	A.M. Peak Hour		P.M. Peak Hour	
	In	Out	In	Out
From the North on Franklin Street	5%	-	5%	-
From the South on Church Street	5%	-	5%	-
From the West on Sunset Avenue	20%	-	28%	-
From the West on Nash Street	20%	-	12%	-
From the East on Thomas Street	22%	-	26%	-
From the East on Hill Street	28%	-	24%	-
To the North on Church Street	-	5%	-	5%
To the South on Franklin Street	-	5%	-	5%
To the West on Thomas Street	-	22%	-	24%
To the West on Western Avenue	-	18%	-	16%
To the East on Tarboro Street	-	23%	-	34%
To the East on Marigold Street	-	27%	-	16%

The trips generated by the land uses within the blocks identified in Table 2 were distributed through the network based on the percentages identified in Table 3 and the existing street operations. The resulting intersection turning movement volumes were used to establish the peak hour turning movement volumes for the No-Build alternative. The No-Build alternative turning movement volumes were then redistributed for each alternative based on changes to the streets included in each alternative.



	IN	OUT
AM	(12%)	*(12%)*
PM	12%	*12%*

Not to Scale

Martin Alexiou Bryson

Figure 5

A.M. Peak Hour and P.M. Peak Hour Trip Distribution

Rocky Mount Downtown Circulation Study

4.0 ALTERNATIVE ANALYSIS SCENARIOS

Five alternative analysis scenarios, plus a No-Build scenario, were developed to analyze proposed future year conditions. The Future No-Build analysis scenario includes the existing traffic as described in Section 2.0 of this report, plus 2.0% growth between the existing year for which base traffic data were provided (2003) and the build years (2025), as well as traffic from the proposed land uses in the downtown area, as discussed in Section 3.0 of this report. The following sections describe the alternative scenarios.

SCENARIO DESCRIPTIONS

In all, six scenarios were developed to evaluate future year conditions. The No-Build alternative includes the projected traffic volumes expected to occur in 2025, but does not consider any changes to the existing street network in the downtown area. As part of developing the other five alternative analysis scenarios, it was determined that a number of existing one-way streets could be easily converted to two-way operation and included in most of the future year analysis scenarios. The following streets were considered feasible two-way conversions due to the relatively insignificant impacts and low cost of implementation:

- Trevathan Street
- Gay Street
- Howard Street
- Washington Street
- Rose Street
- Falls Road

In addition to the feasible one-way street conversions, the following one-way streets were analyzed as two-way streets in the alternative scenarios:

- Thomas Street
- Sunset Avenue/Tarboro Street
- Hill Street/Western Avenue
- Nash Street/Marigold Street
- One block of Southeast Main Street between Marigold Street and Hill Street

The following rail crossings were also considered for closure as part of the alternative scenarios:

- Hill Street/Western Avenue
- Nash Street/Marigold Street

Preliminary alternatives were developed and submitted for review. After incorporating feedback from stakeholders in the downtown area, five alternative scenarios were carried forward for analysis. The one-way street conversions and rail crossing closures identified above were combined to formulate the following five alternative analysis scenarios:

- No-Build – This alternative included the estimated peak hour traffic volumes for year 2025, including new trips for the proposed land uses in the downtown core, but does not include any changes to the existing street network.

- Alternative 1 – This alternative included all of the feasible street conversions, the conversion of Main Street between Hill Street and Marigold Street to two-way operation, the conversion of the one-way pair of Hill Street/Western Avenue and Nash Street/Marigold Street to two-way operation, and the closure of the rail crossing on Nash Street/Marigold Street.
- Alternative 2 – This alternative is identical to Alternative 1 with the following exceptions:
    - Washington Street and Rose Street remain one-way streets
    - Thomas Street and Sunset Avenue/Tarboro Street are converted to two-way operation.
- Alternative 3 – This alternative included all of the feasible street conversions, the conversion of the one-way pair of Hill Street/Western Avenue and Nash Street/Marigold Street to two-way operation, and the closure of the rail crossing on Hill Street/Western Avenue.
- Alternative 4 – This alternative is identical to Alternative 3 with the following exceptions:
    - Washington Street and Rose Street remain one-way streets
    - Thomas Street and Sunset Avenue/Tarboro Street are converted to two-way operation.
- Alternative 5 – This alternative included most of the feasible one-way street conversions plus the conversion of all of the major streets in the downtown area (Thomas Street, Sunset Avenue/Tarboro Street, Hill Street/Western Avenue, Nash Street/Marigold Street, Franklin Street, and Church Street) to two-way operation. However, all railroad crossings in the downtown area remain open to vehicular crossing traffic in this scenario and Washington Street and Rose Street remain as one-way streets.

ESTIMATED PEAK HOUR TRAFFIC VOLUMES

In order to assess the impacts of the alternatives, it was necessary to redistribute the future year traffic volumes included in the No-Build scenario taking into account the changes to the street network in each alternative. The assumptions that were made in order to develop the peak hour traffic volumes for each alternative are discussed below.

- No-Build – Peak hour traffic volumes for this alternative were estimated based on growth of existing traffic at a rate of two percent per year and the added trips generated by the proposed land use changes in the downtown core. The trips generated by the new land uses were distributed throughout the downtown street network by the percentages indicated in Table 3. The A.M. peak hour and P.M. peak hour traffic volumes for this alternative are shown in Figures 8 and 9.
- Alternative 1 – It was assumed that 90% of the traffic traveling on Hill Street/Western Avenue and Nash Street/Marigold Street in the No-Build alternative would travel on Hill Street/Western Avenue and 10% would travel on Nash Street/Marigold Street. As part of this alternative, the rail crossing on Nash Street/Marigold Street would be closed; therefore all of the traffic crossing the railroad tracks in the No-Build alternative on this street was rerouted to cross the railroad tracks on Hill Street/Western Avenue. Traffic patterns were also adjusted to reflect the proposed conversion of Main Street to two-way operation.

Some of the traffic patterns on Thomas Street and Sunset Avenue were also adjusted to reflect the proposed conversion of Washington Street, Rose Street, and Falls Road to two-way operation. The A.M. peak hour and P.M. peak hour traffic volumes for this alternative are shown in Figures 10 and 11.

- Alternative 2 – The assumptions used to estimate traffic on Hill Street/Western Avenue and Nash Street/Marigold Street in this alternative were the same as in Alternative 1.

  It was assumed that 70% of the traffic traveling on Sunset Avenue and Thomas Street would travel on Sunset Avenue and the remaining 30% would travel on Thomas Street. It was further assumed that Washington Street and Rose Street would remain under one-way operation for this alternative. If Washington Street and Rose Street were converted to two-way operation for this alternative, the resulting traffic operations at the intersection of Tarboro Street at Washington Street and Rose Street (Five Points) and at the intersection of Main Street and Thomas Street would become more complex thus resulting in severely congested peak hour traffic conditions. The A.M. peak hour and P.M. peak hour traffic volumes for this alternative are shown in Figure 12 and 13.

- Alternative 3 – It was assumed that 10% of the traffic traveling on Hill Street/Western Avenue and Nash Street/Marigold Street in the No-Build alternative would travel on Hill Street/Western Avenue and 90% would travel on Nash Street/Marigold Street. As part of this alternative, the rail crossing on Hill Street/Western Avenue would be closed; therefore all of the traffic crossing the railroad tracks on this street in the No-Build alternative was rerouted to cross the railroad tracks on Nash Street/Marigold Street. It was also assumed that no blocks of Main Street or Main Street would be converted to two-way operation.

  Some of the traffic patterns on Thomas Street and Sunset Avenue were adjusted to reflect the proposed conversion of Washington Street, Rose Street, and Falls Road to two-way operation. The A.M. peak hour and P.M. peak hour traffic volumes for this alternative are shown in Figure 14 and 15.

- Alternative 4 – The assumptions used to estimate traffic on Hill Street/Western Avenue and Nash Street/Marigold Street in this alternative were the same as in Alternative 3.

  The assumptions used to estimate traffic on Thomas Street and Sunset Avenue for this alternative are the same was the assumptions used to estimate traffic on these streets in Alternative 2. The A.M. peak hour and P.M. peak hour traffic volumes for this alternative are shown in Figure 16 and 17.

- Alternative 5 – It was assumed that 70% of the traffic traveling on Hill Street/Western Avenue and Nash Street/Marigold Street in the No-Build alternative would travel on Hill Street/Western Avenue and 30% would travel on Nash Street/Marigold Street.

  It was assumed that 70% of the traffic traveling on Sunset Avenue and Thomas Street would travel on Sunset Avenue and the remaining 30% would travel on Thomas Street.

It was assumed that 70% of the traffic traveling on Church Street and Franklin Street would travel on Church Street and the remaining 30% would travel on Franklin Street. The A.M. peak hour and P.M. peak hour traffic volumes for this alternative are shown in Figure 18 and 19.

IMPACTS ON PARKING

Availability of convenient parking is a vital component to economic development in the downtown area. On-street parking is currently provided in the downtown area in the form of angled parking on both sides of Main Street. Stakeholders expressed a strong desire to maintain the current level of on-street parking in the downtown area. Stakeholders also wanted to investigate opportunities for adding more parking downtown. However, it is anticipated that converting blocks of Main Street to two-way operation would result in a moderate loss of on-street parking, if the parking were designed to current city guidelines. According to the city of Rocky Mount design guidelines the minimum width necessary to provide 60-degree on-street parking on one side of a two-way street and parallel parking on the other side of the street is approximately 53.9 feet. Main Street is approximately 49 feet wide between Hill Street and Marigold Street. If this block of Main Street were converted to two-way traffic and the minimum dimensions were utilized for 60-degree angled parking, the parallel parking on Main Street would be removed.

Angled parking is provided on Main Street.

5.0 TRAFFIC ANALYSES

LEVEL OF SERVICE CRITERIA

Peak hour level of service (LOS) measures the adequacy of the intersection geometrics and traffic controls of a particular intersection or approach for the given turning movement volumes. Levels of service range from A through F, based on the average control delay experienced by vehicles traveling through the intersection during the peak hour. Control delay represents the portion of total delay attributed to traffic control devices (e.g., signals or stop signs). The engineering profession generally accepts LOS D as an acceptable operating condition for signalized intersections in urban areas and LOS C for rural areas.

At unsignalized intersections, a LOS E is generally considered acceptable only if the side street encounters delay. Nevertheless, side streets typically function at LOS F during peak traffic periods, because the traffic volumes often do not warrant a traffic signal to assist side street traffic. Table 5 provides a general description of the various levels of service categories and delay ranges.

Table 4 Intersection Level of Service Descriptions Based on Average Delay

Level of Service	Description	Signalized Intersection	Unsignalized Intersection
A	Little or no delay	<= 10 sec.	<= 10 sec.
B	Short traffic delay	10-20 sec.	10-15 sec.
C	Average traffic delay	20-35 sec.	15-25 sec.
D	Long traffic delay	35-55 sec.	25-35 sec.
E	Very long traffic delay	55-80 sec.	35-50 sec.
F	Unacceptable delay	> 80 sec.	> 50 sec.

LEVEL OF SERVICE RESULTS

Intersection levels of service analyses were performed for the typical weekday A.M. and P.M. peak hours using *Synchro/SimTraffic Professional Version 6*. The analyses were performed for existing conditions, future year (2025) no-build conditions, and for the future year (2025) alternatives described in Section 4 of this report. The level of service results are summarized in Table 6 and detailed *Synchro* output is available in Appendix D. The analyses were performed for each alternative with the following assumptions:

- Left-turn lanes would be provided where possible when streets are converted from one-way operation to two-way operation.

- Traffic signal phasing was assumed to be as simple as possible. For example, although left-turn conflict is introduced at the intersections on Church Street and Franklin Street as a result of converting streets to two-way operation, simple two-phase operation was utilized for those intersections in all alternatives.

Table 5 Level of Service Results Summary

Alternative	Intersection Operating at Unacceptable LOS (LOS E or worse)
Existing Conditions	• None
No-Build Conditions	• None
Alternative 1	• Hill Street/Western Avenue at Main Street /Main Street
Alternative 2	• Sunset Avenue/Tarboro Street at Main Street • Hill Street/Western Avenue at Main Street
Alternative 3	• Nash Street/Marigold Street at Main Street
Alternative 4	• Sunset Avenue/Tarboro Street at Main Street • Nash Street/Marigold Street at Main Street
Alternative 5	• Sunset Avenue at Church Street • Sunset Avenue/Tarboro Street at Main Street

Peak hour traffic volumes and levels of service for each alternative are shown in Figures 6 through 19.

The level of service results indicate that the intersections adjacent to the railroad tracks (Main Street) are the most affected by the changes in traffic associated with the various alternatives. This is due to the geometry of the intersections that will result once the streets crossing the railroad are converted to two-way operation. Because of the location of the railroad crossings, the intersections adjacent to the railroad tracks are extremely wide. The location of the railroad tracks in close proximity to Main Street creates two very closely spaced intersections on each side of the railroad tracks that operate as a single intersection. Fortunately, with the east-west streets being one-way, it is possible to provide an acceptable level of service. However, should the east-west streets be converted to two-way operation, the signal phasing would become much more complex. With such a wide intersection and the close proximity of the railroad tracks, it is not feasible to allow permitted left-turn movements. Therefore, each approach to the intersection requires a protected phase within the traffic signal cycle. This increases the signal cycle length and increased delays for each approach to the intersection. This effect is apparent in the level of service results for Alternative 1 through 5. The following sections discuss the analyses results for each alternative.

Existing Conditions

The analysis results for existing conditions indicate that, with the exception of delays caused by trains passing through downtown, the downtown street network has excess capacity. Currently all of the intersections analyzed in this study are operating at an acceptable level of service.

No-Build Conditions

The analysis results for No-Build conditions indicated that, with the exception of delays expected to occur due to trains passing through downtown, the downtown street network has excess capacity. All of the intersections analyzed are expected to operate at an acceptable level of service.

Alternative 1

The analysis results for Alternative 1 indicate that the proposed changes to traffic patterns will negatively impact the intersection of Hill Street/Western Avenue with Main Street. As explained above, this is due the complexity of traffic operations required at this intersection if Hill Street/Western Avenue is converted to two-way operation.

The railroad tracks through downtown will contribute to the complexity of signal phasing once the east-west streets are converted to two-way operation.

Alternative 2

The analysis results for Alternative 2 indicate that the proposed changes to traffic operations will negatively impact the intersection of Hill Street/Western Avenue with Main Street. Again this is due the complexity of traffic operations required at this intersection if Hill Street/Western Avenue is converted to two-way operation.

The analysis results for Alternative 2 also indicate that the proposed changes to traffic operations will negatively impact the intersection of Sunset Avenue/Tarboro Street at Main Street. Again this is due the complexity of traffic operations required at this intersection if Sunset Avenue/Tarboro Street is converted to two-way operation.

Alternative 3

The analysis results for Alternative 3 indicate that the proposed changes to traffic operations will negatively impact the intersection of Nash Street/Marigold Street at Main Street. Again this is due the complexity of traffic operations required at this intersection if Nash Street/Marigold Street is converted to two-way operation. In addition, the intersection of Marigold Street and Main Street is currently unsignalized. It is assumed that if this alternative is implemented then the intersection will be signalized and operated with the same controller as the intersection of Nash Street and Main Street.

Alternative 4

The analysis results for Alternative 4 indicate that the proposed changes to traffic operations will negatively impact the intersection of Nash Street/Marigold Street at Main Street. Again this is due the complexity of traffic operations required at this intersection if Nash Street/Marigold Street is converted to two-way operation. In addition, the intersection of Marigold Street and Main Street is currently unsignalized. It is again assumed that if this alternative is implemented then the intersection will be signalized and operated with the same controller as the intersection of Nash Street and Main Street.

The analysis results for Alternative 4 also indicate that the proposed changes to traffic operations will negatively impact the intersection of Sunset Avenue/Tarboro Street at Main Street. Again this is due the complexity of traffic operations required at this intersection if Sunset Avenue/Tarboro Street is converted to two-way operation.

Alternative 5

The analysis results for Alternative 5 indicate that the proposed changes to traffic operations will negatively impact the intersection of Sunset Avenue/Tarboro Street at

Main Street. Again this is due the complexity of traffic operations required at this intersection if Sunset Avenue/Tarboro Street is converted to two-way operation.

The analysis results for Alternative 5 also indicate that the proposed changes to traffic operations will negatively impact the intersection of Sunset Avenue at Church Street. One of the assumptions of this alternative is that Sunset Avenue will carry 70% of the east-west traffic projected to travel on Sunset Avenue and Thomas Street. It was also assumed that Church Street would carry 70% of the north-south traffic projected to travel on Church Street and Franklin Street. Converting these streets to two-way operation also introduces conflicts for left-turning vehicles at this intersection. The combined effect of increased traffic and decreased intersection capacity results in an unacceptable level of service at this intersection.

The intersection of Marigold Street and Main Street is currently unsignalized. It is again assumed that if this alternative is implemented, then the intersection will be signalized and operated with the same controller as the intersection of Nash Street and Main Street.

CONCLUSIONS

In comparison to the No-Build alternative, all of the alternatives under consideration result in increased travel delays for vehicles traveling through downtown on the east-west streets, however the impact of some alternatives are greater than others. Table 6 summarizes the delay for vehicles traveling through downtown for each alternative. This measure is useful to compare the alternatives one against the other. The alternatives are ranked in order of average vehicle delay from lowest average vehicle delay to highest average vehicle delay.

Table 6 Average Vehicle Delays

Alternative	Network Vehicle Delay (sec/veh) [1]				Average Rank	Overall Rank
	A.M. Peak	Rank	P.M. Peak	Rank		
No-Build Conditions	00:11	-	00:12	-	-	-
Alternative 1	00:17	1	00:19	2	1.5	2
Alternative 2	00:24	5	00:26	3	4	3
Alternative 3	00:17	1	00:14	1	1	1
Alternative 4	00:20	4	00:30	4	4	3
Alternative 5	00:19	3	00:42	5	4	3

Note: Alternatives are ranked 1 through 5, lowest average delay to highest average delay.

[1] Summarizes average delay for all vehicles in the study area.

In addition to comparing network system delay across the alternative, network average speed is also a useful measure to compare the alternatives. Table 7 summarizes the average vehicle travel speeds on the roads in the study area for each alternative. The alternatives are also ranked in order of average travel speed from highest average speed to lowest average speed.

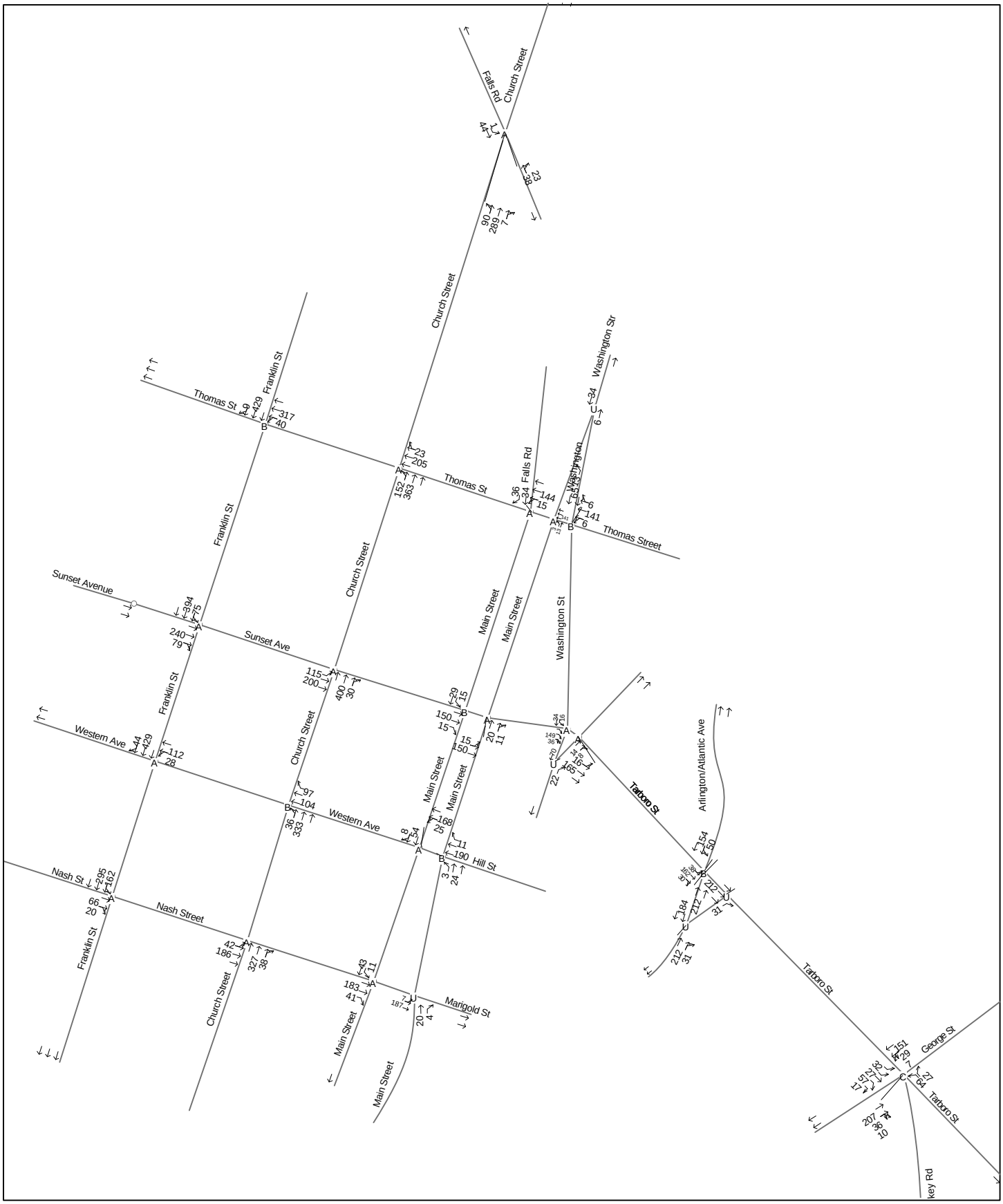
Table 7 Average Vehicle Speeds

Alternative	Network Vehicle Delay (mph) [1]				Average Rank	Overall Rank
	A.M. Peak	Rank	P.M. Peak	Rank		
No-Build Conditions	14	-	13	-	-	-
Alternative 1	11	1	10	2	1.5	2
Alternative 2	9	5	9	3	4	3
Alternative 3	11	1	12	1	1	1
Alternative 4	10	4	8	4	4	3
Alternative 5	11	1	6	5	3	3

Note: Alternatives are ranked 1 through 5, highest average speed to lowest average speed.

[1] Summarizes average speed for all vehicles in the study area.

Existing A.M. Peak Hour **Figure 6**
Level of Service and Traffic Volumes



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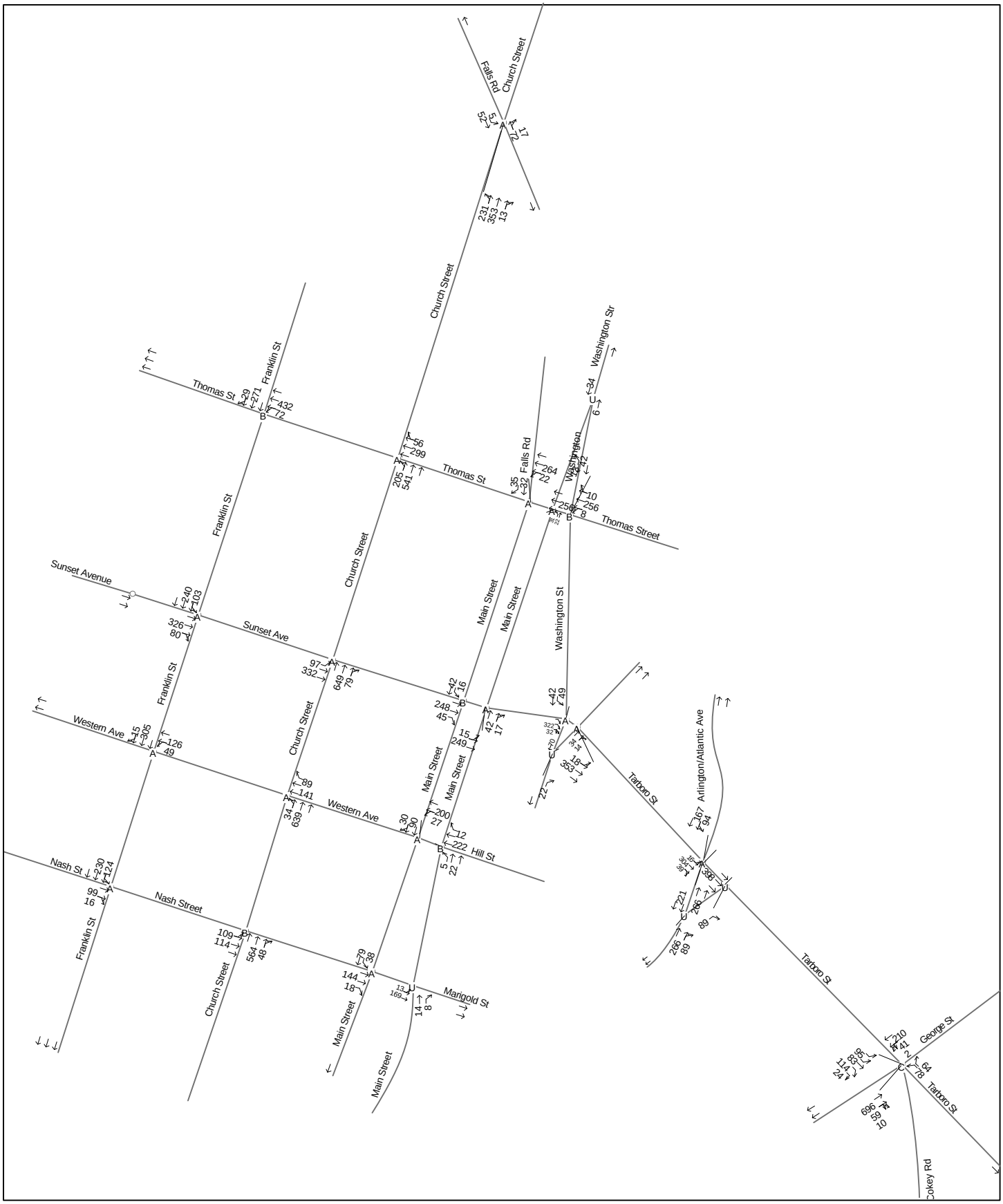
Existing P.M. Peak Hour **Figure 7**
Level of Service and Traffic Volumes



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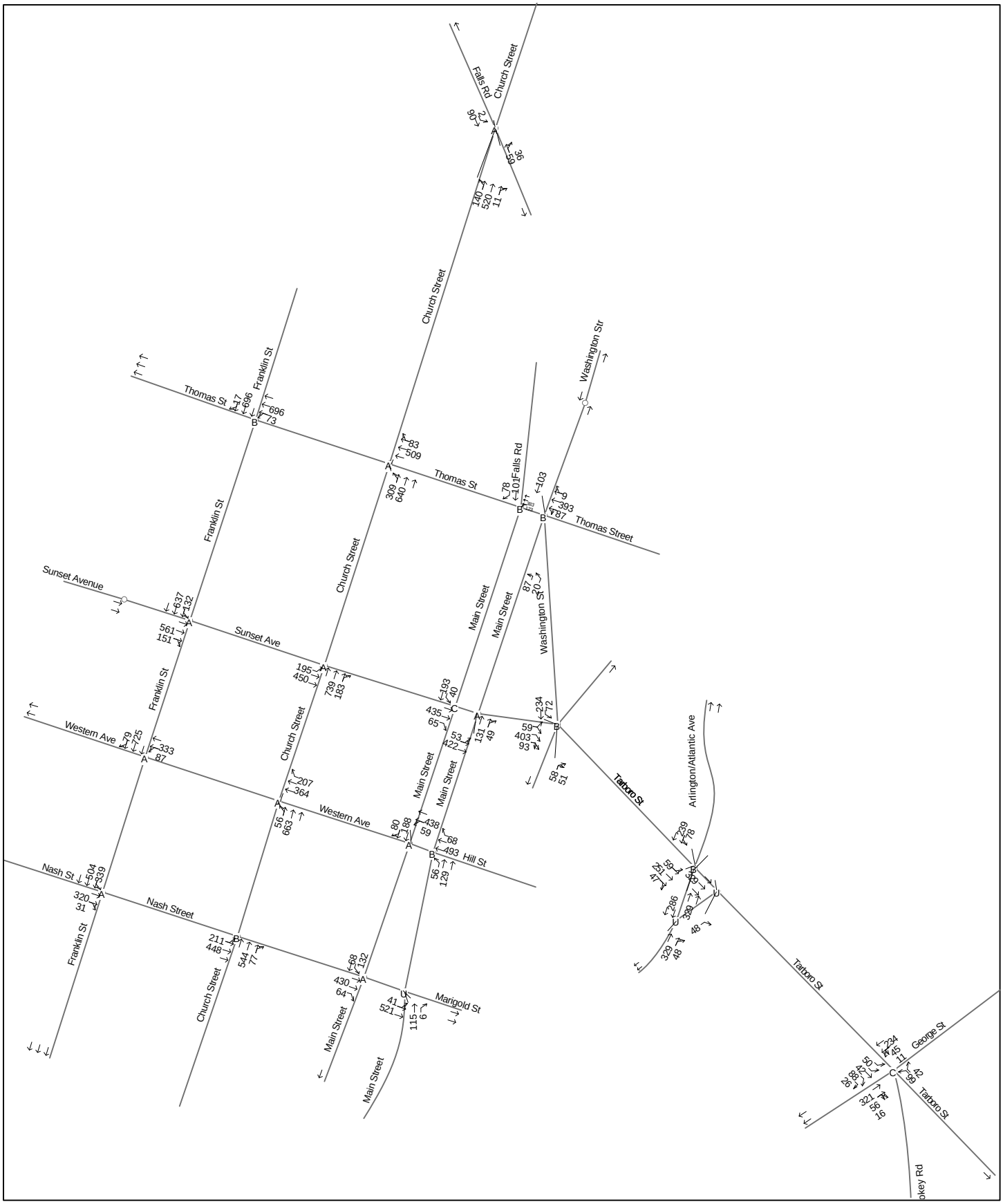
No-Build A.M. Peak Hour **Figure 8**

Level of Service and Traffic Volumes



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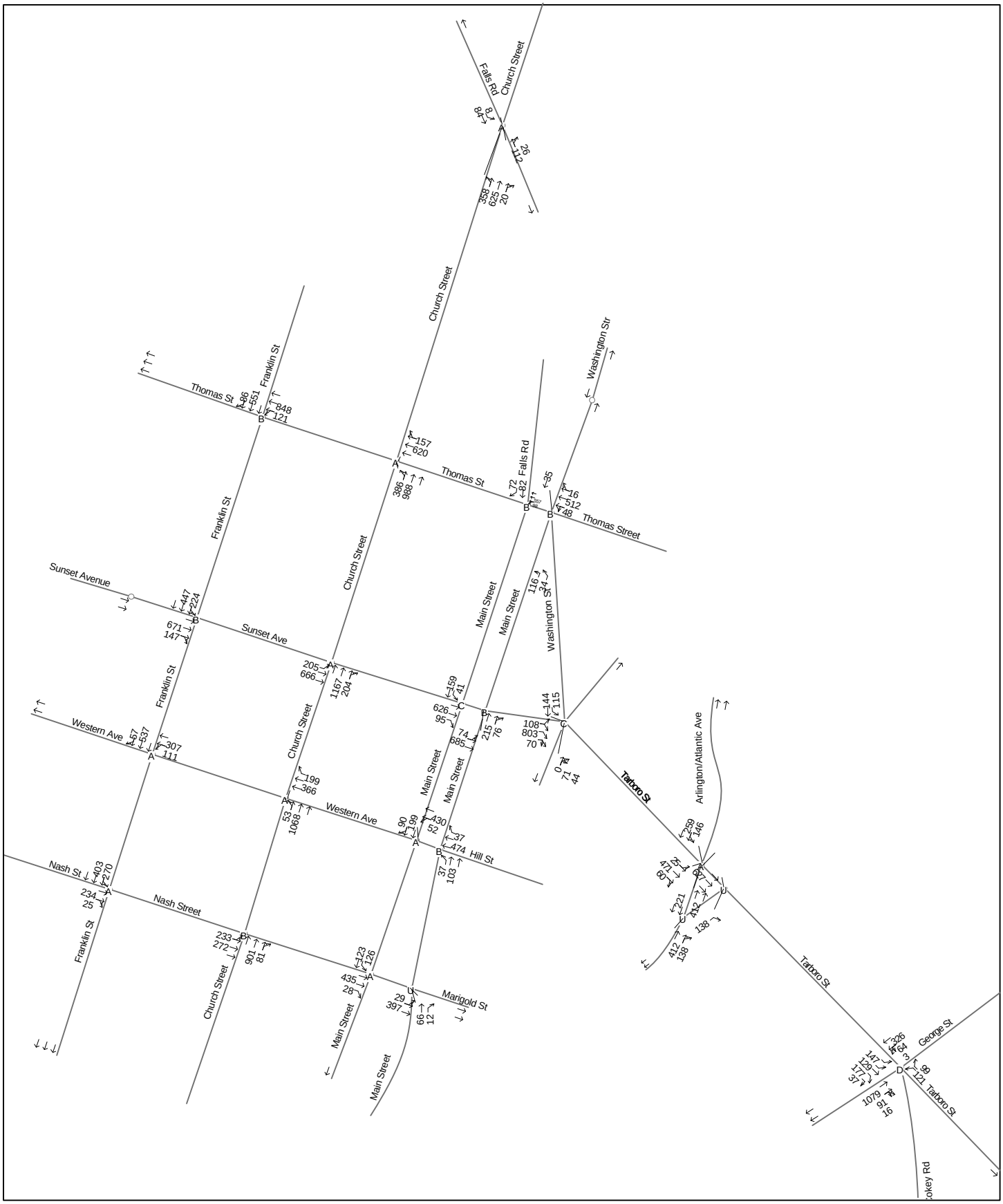
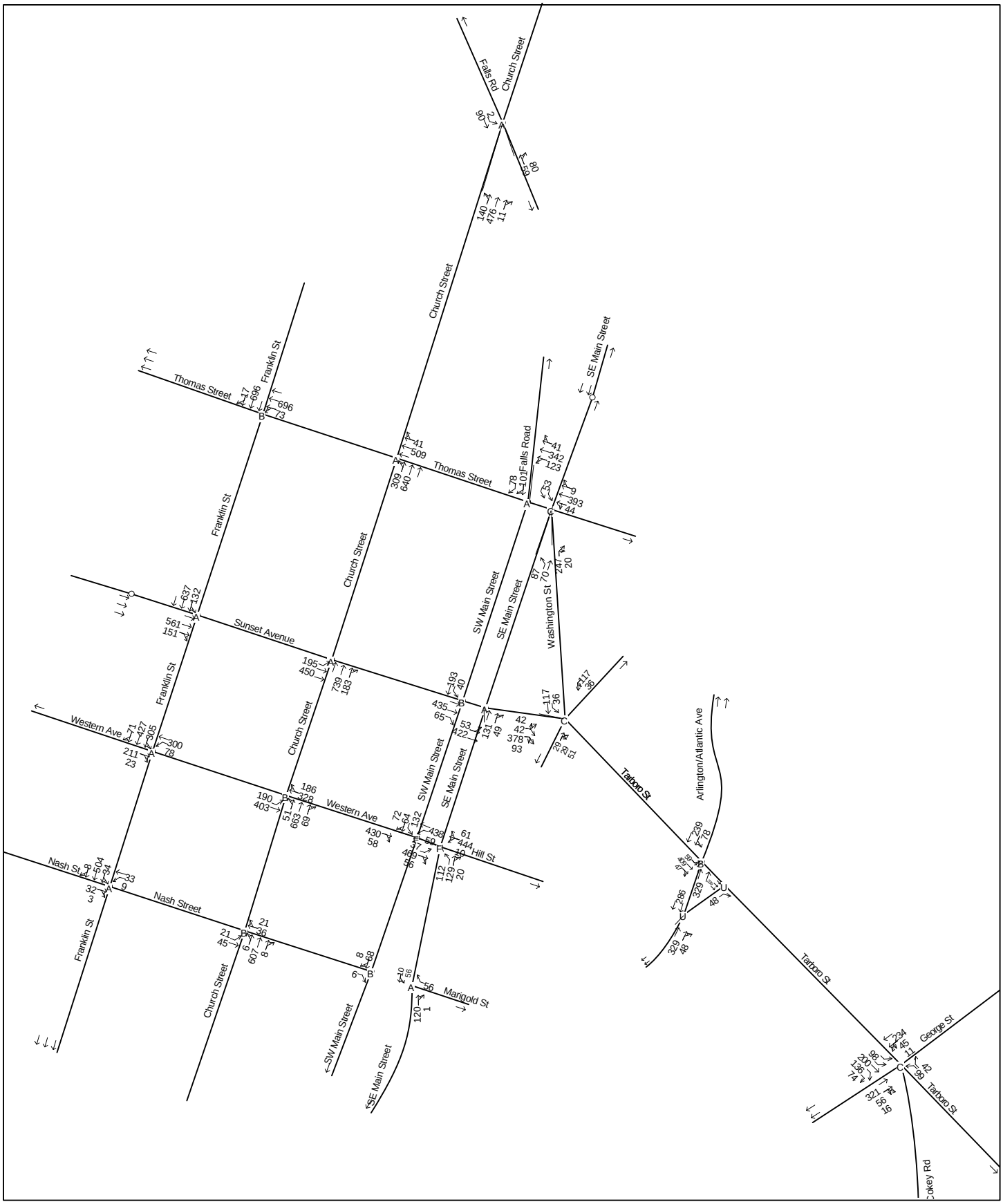
No-Build P.M. Peak Hour **Figure 9**

Level of Service and Traffic Volumes



Alternative 1 - AM Peak **Figure 10**

Level of Service and Traffic Volumes



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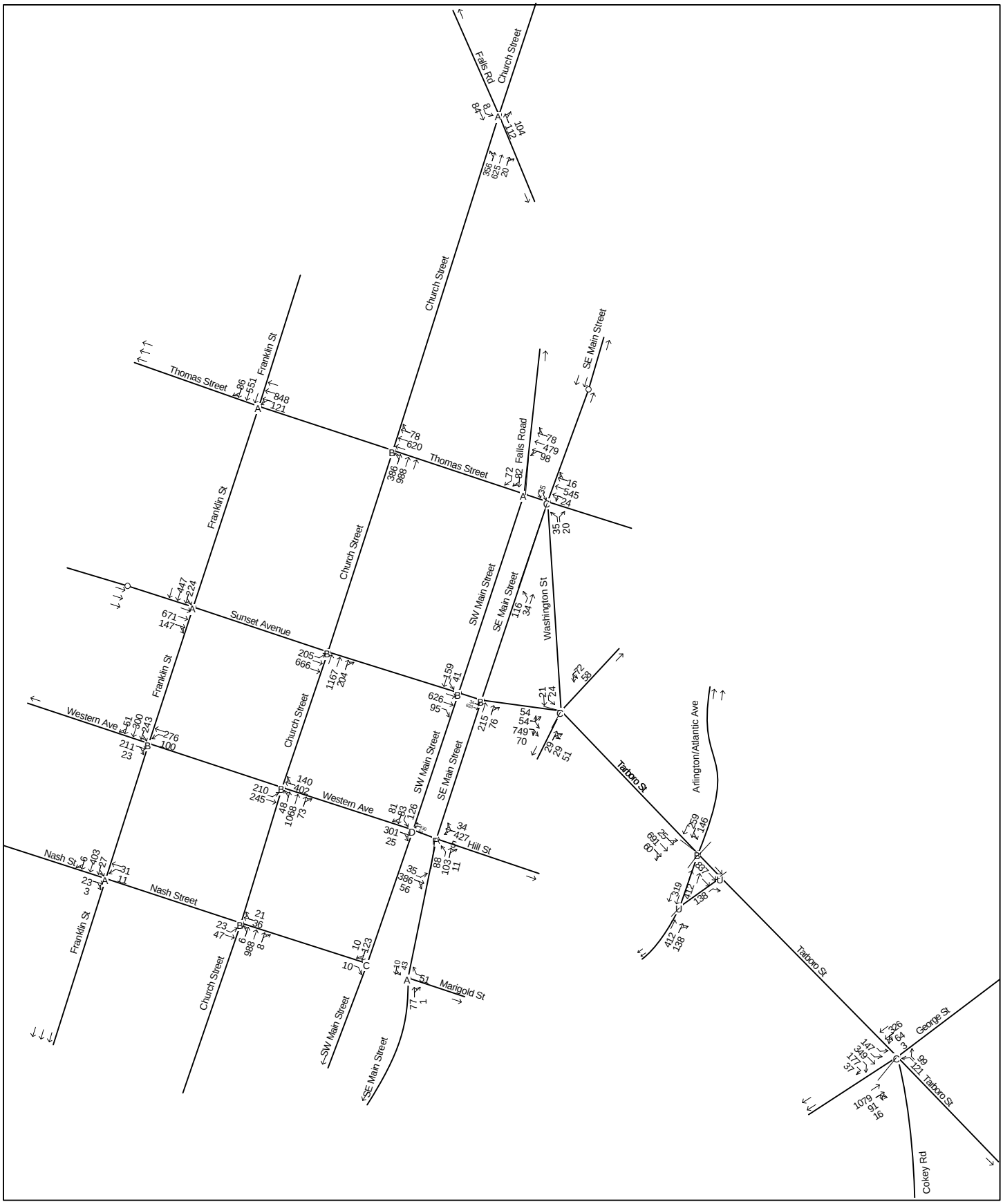
Alternative 1 - PM Peak **Figure 11**

Level of Service and Traffic Volumes



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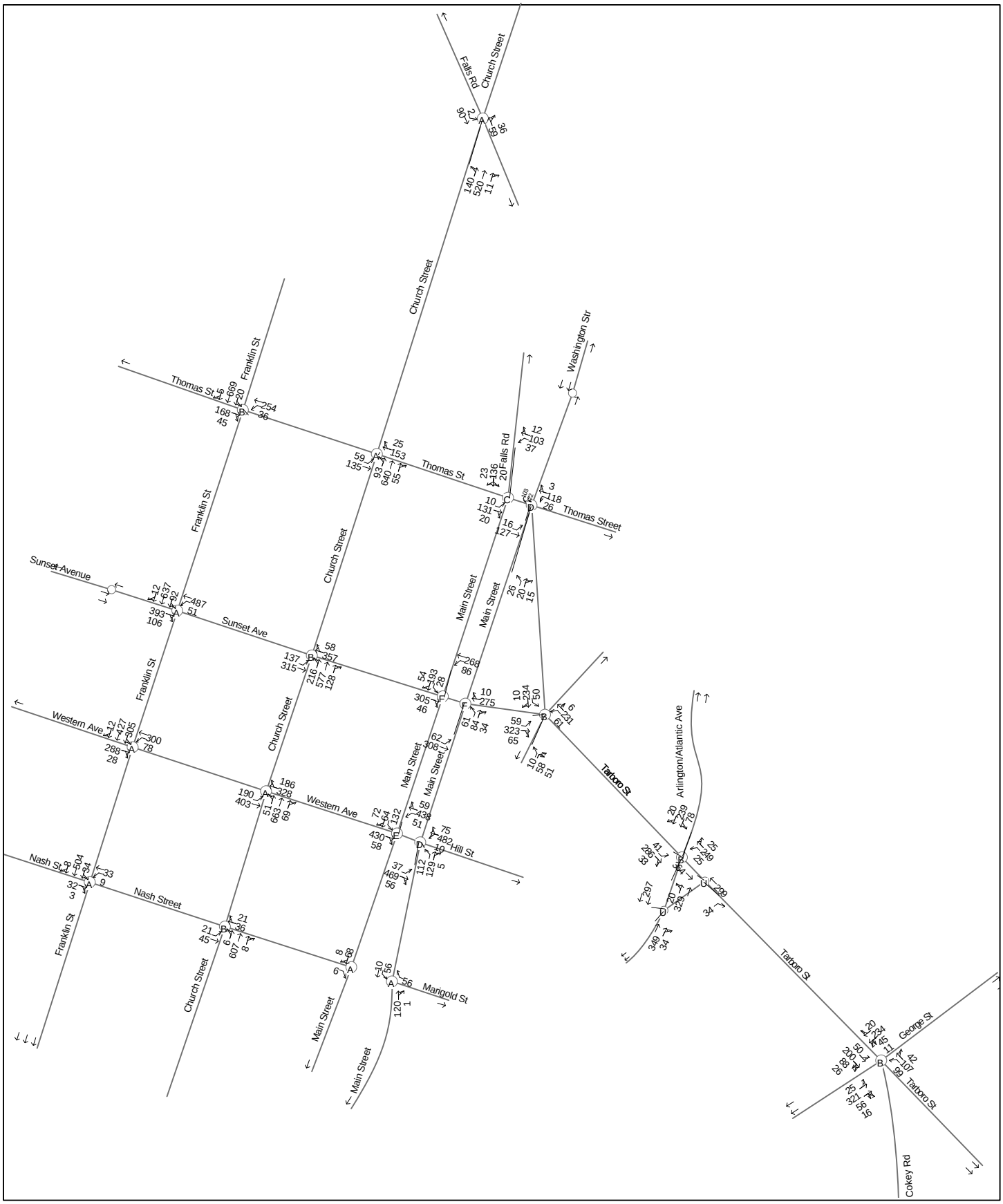
Alternative 2 - A.M. Peak Hour **Figure 12**

Level of Service and Traffic Volumes



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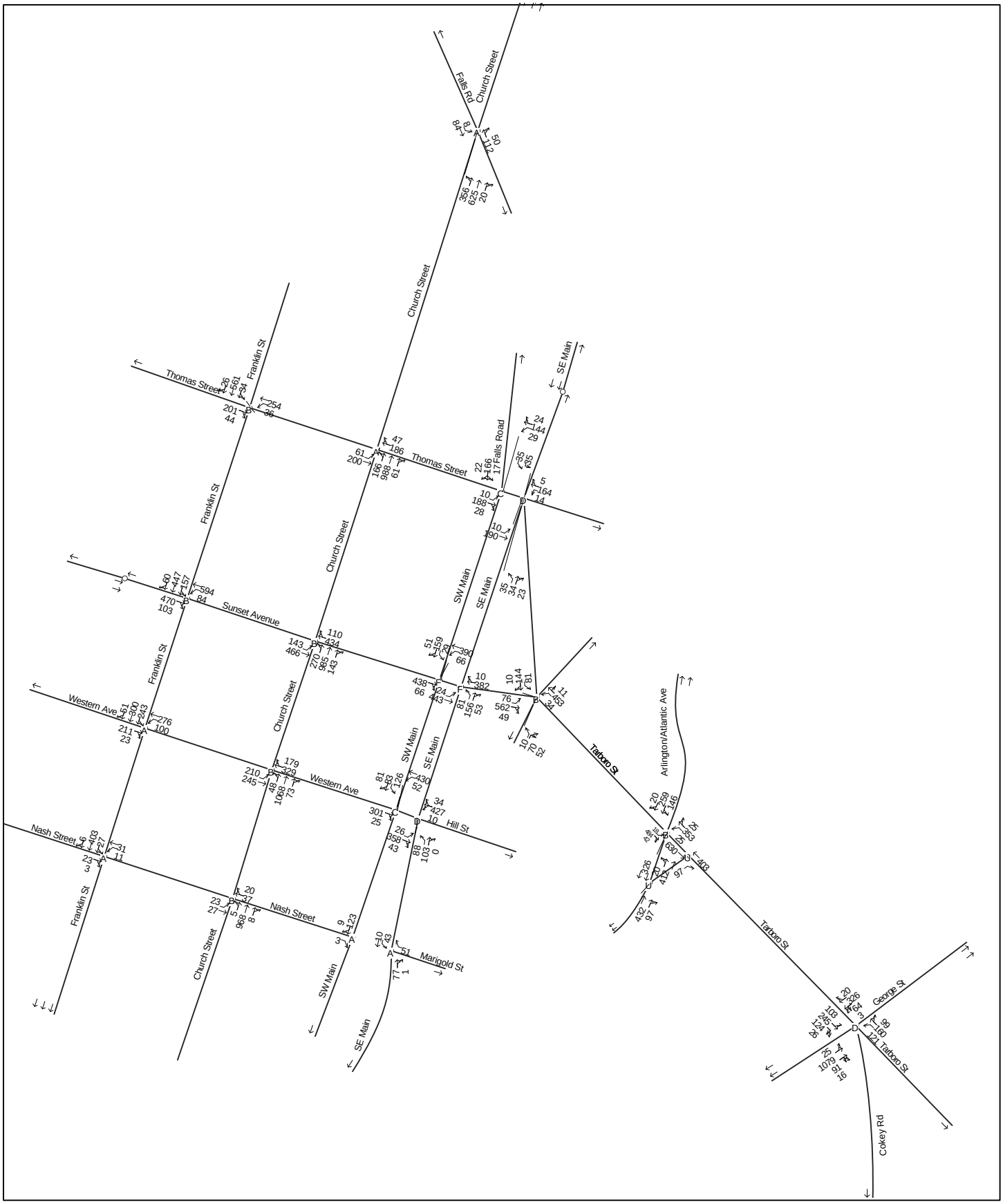
Alternative 2 - P.M. Peak Hour **Figure 13**
Level of Service and Traffic Volumes



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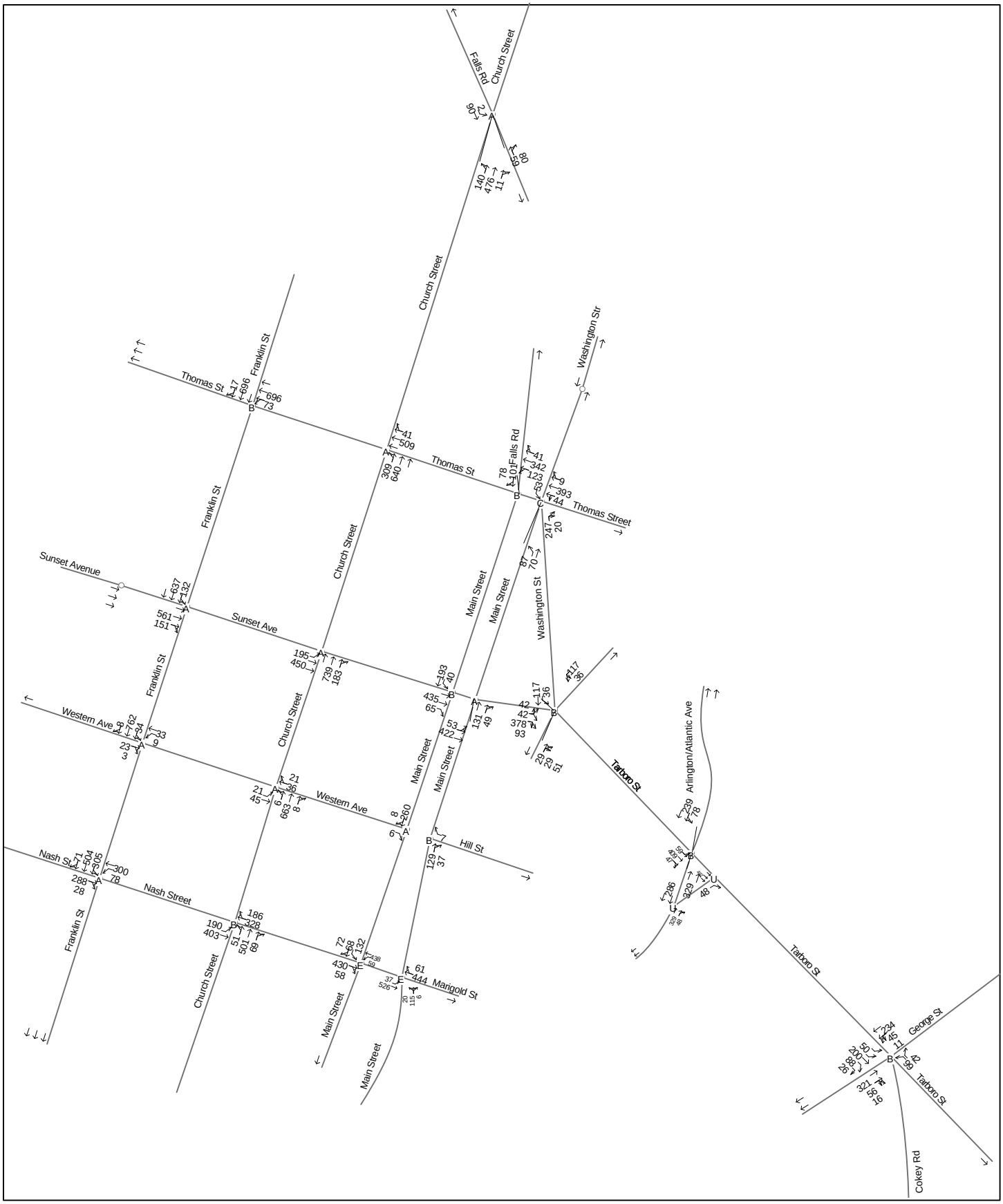
Alternative 3 - A.M. Peak Hour **Figure 14**
Level of Service and Traffic Volumes



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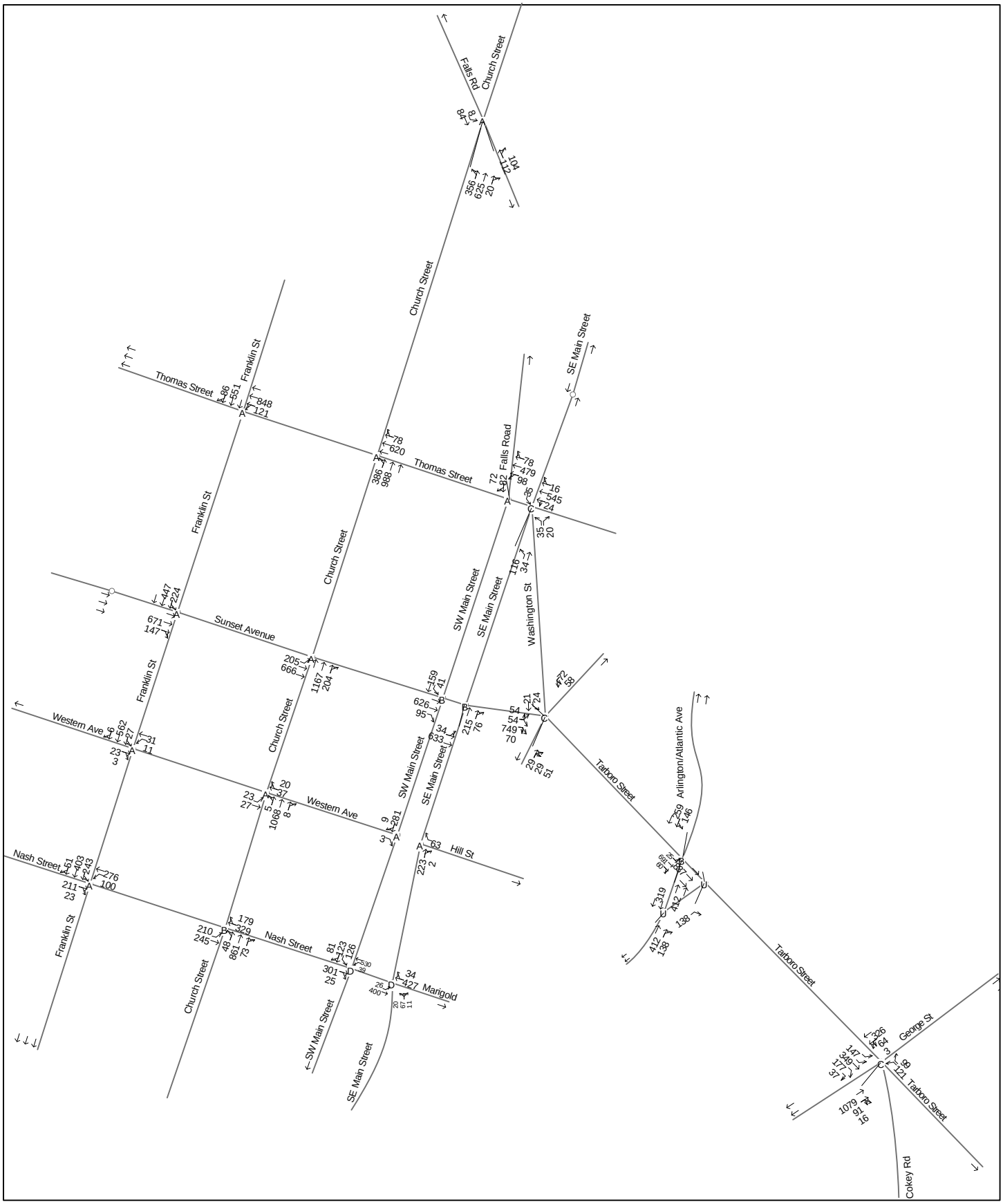
Alternative 3 - P.M. Peak Hour **Figure 15**

Level of Service and Traffic Volumes



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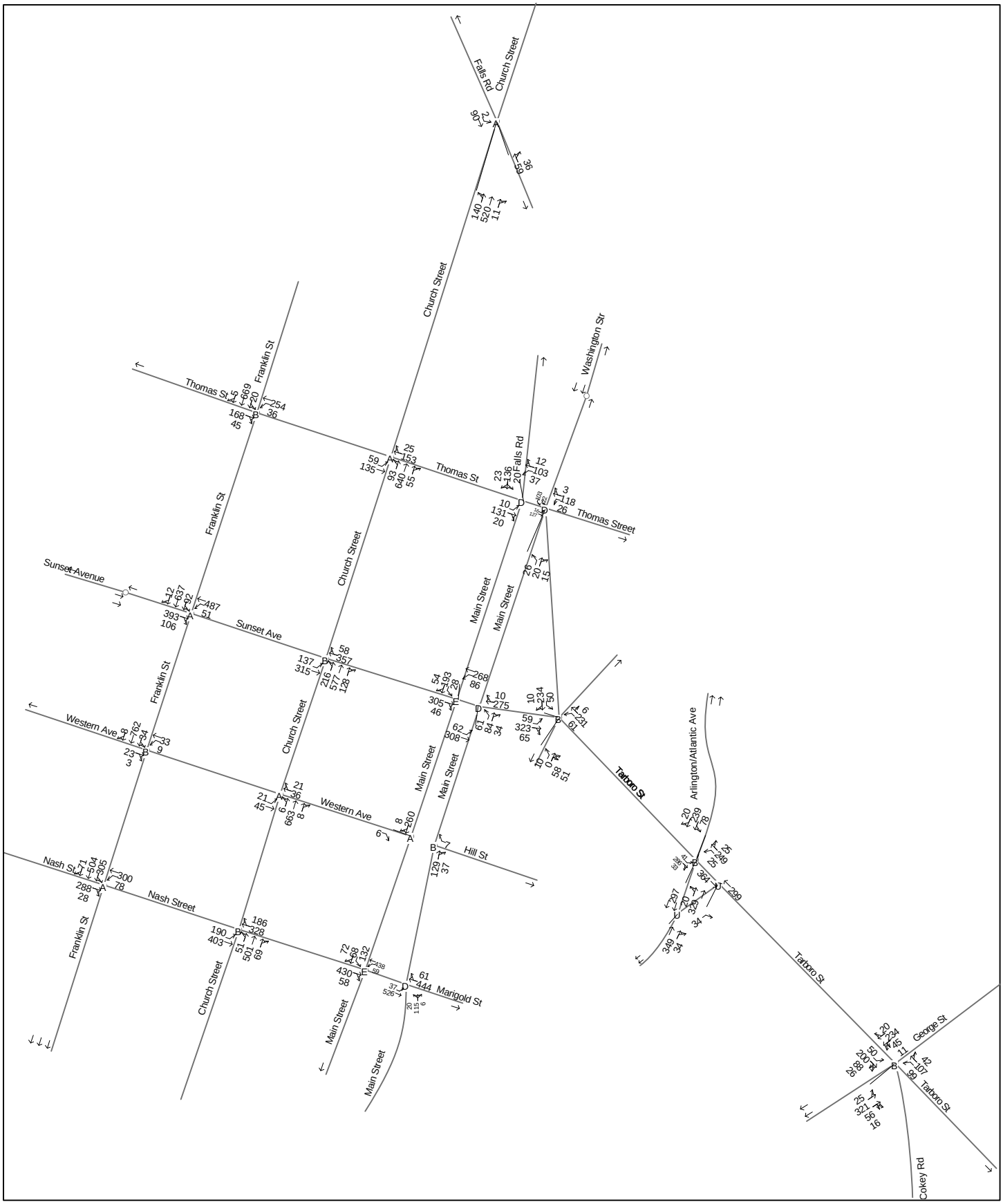
Alternative 4 - A.M. Peak Hour **Figure 16**

Level of Service and Traffic Volumes



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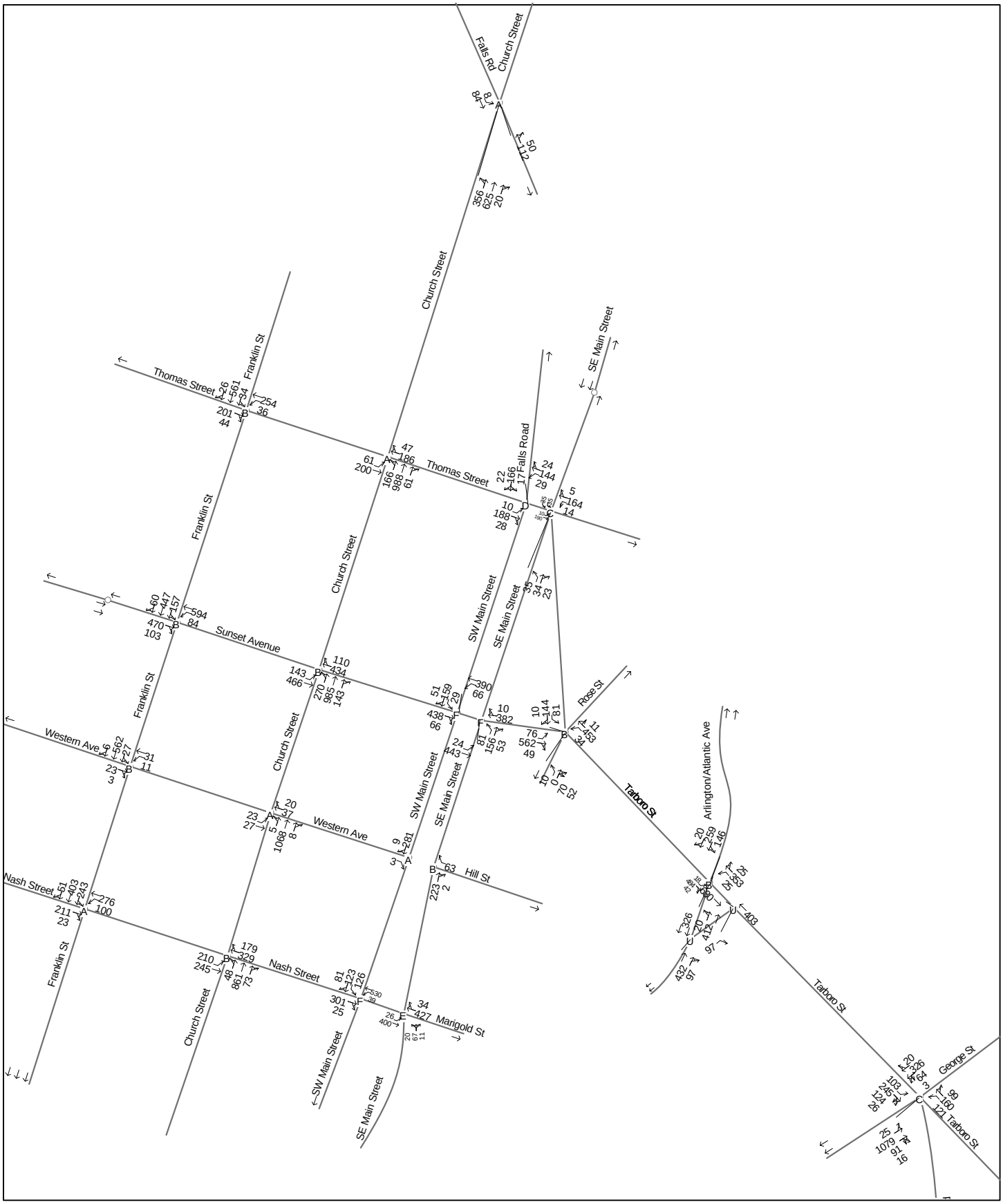
Alternative 4 - P.M. Peak Hour **Figure 17**

Level of Service and Traffic Volumes



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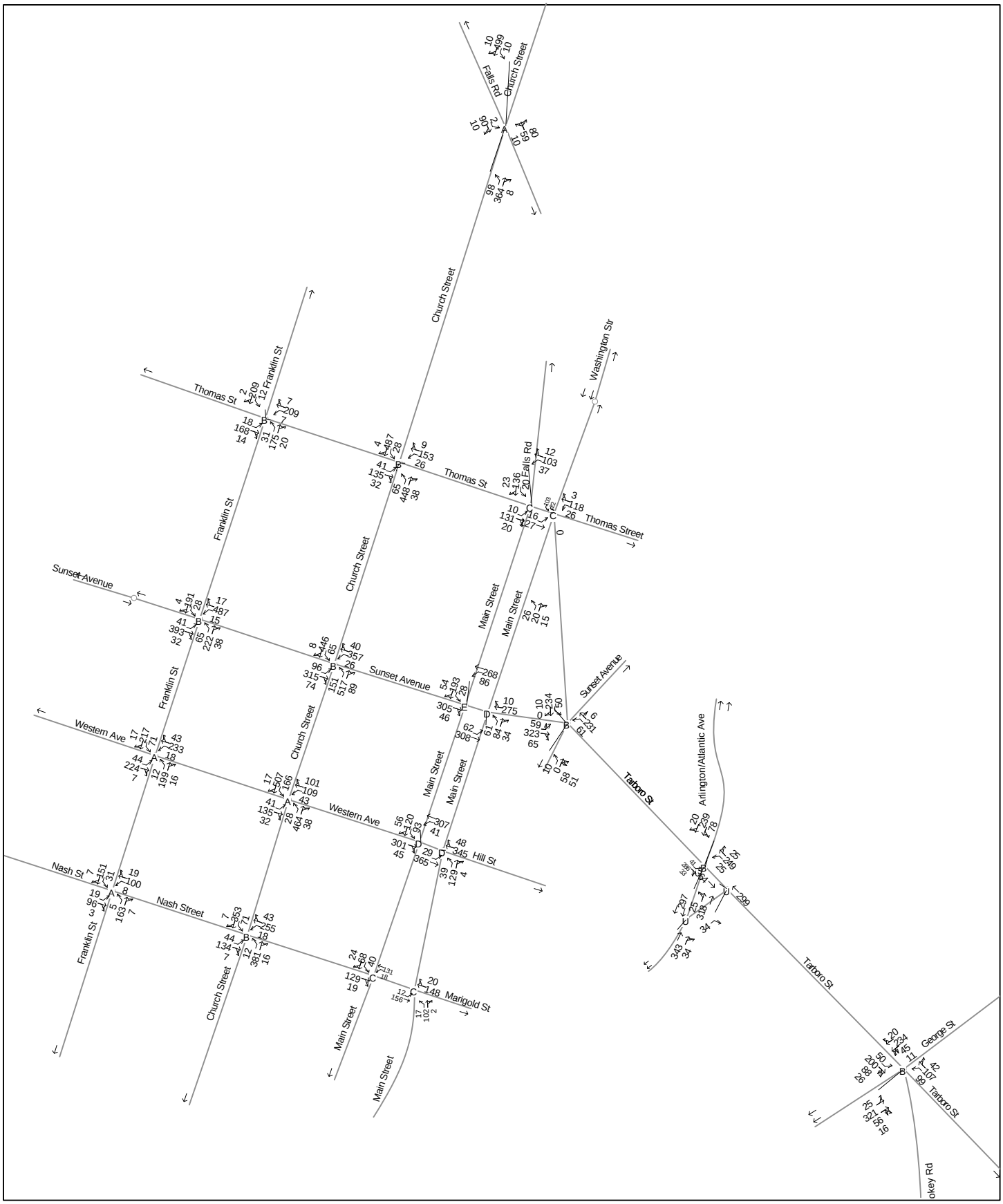
Alternative 5 - A.M. Peak Hour **Figure 18**
Level of Service and Traffic Volumes



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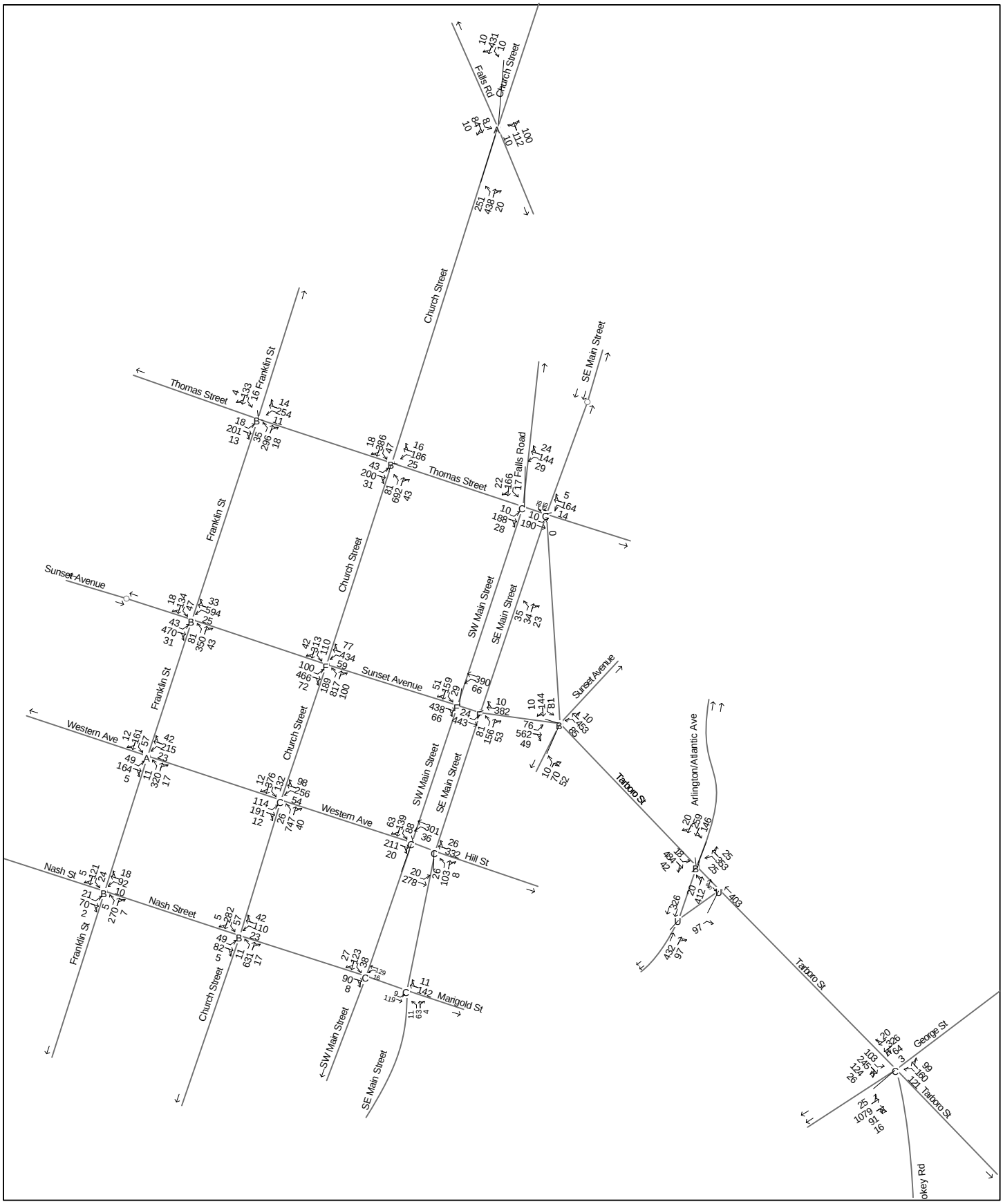
Alternative 5 - P.M. Peak Hour **Figure 19**
Level of Service and Traffic Volumes



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6.0 OTHER SYSTEM MEASURES

P.M. PEAK HOUR TRAVEL TIME

Travel time is perhaps the most basic measure of the performance of a transportation network. Although travel time data collection was not part of this project, using the Synchro analysis output, it is possible to perform a comparative analysis of estimated travel time for a set origins and destinations. P.M. peak hour travel times were estimated for each alternative using the origins and destinations identified below.

- Origins
  - Intersection of Sunset Avenue and Grace Street
  - Intersection of Thomas Street and Atlantic Avenue
- Destinations
  - Intersection of Nash Street and S.W. Main Street
  - Intersection of Hill Street and S.E. Main Street
  - Intersection of Marigold Street and S.E. Main Street

Table 8 ranks Alternatives 1 through 5 based on the estimated travel time during the P.M. peak hour for each set of origins and destinations. The basis for the estimated travel times is summarized in Table 11 and Table 12.

Table 8 Alternatives Ranked by Estimated P.M. Peak Travel Times

Origin	Destination	No-Build	Alt. 1		Alt. 2		Alt. 3		Alt. 4		Alt. 5	
		Travel Time	Travel Time	Rank	Travel Time	Rank	Travel Time	Rank	Travel Time	Rank	Travel Time	Rank
Sunset Avenue at Grace Street	Nash Street at Main Street	3:02	2:33	1	2:53	2	3:03	3	3:22	4	3:53	5
	Hill Street at Main Street	3:47	1:59	1	4:22	3	3:42	2	5:46	5	5:31	4
	Marigold Street at Main Street	3:06	2:25	1	4:48	3	3:13	2	5:03	5	6:36	4
Thomas Street at Atlantic Avenue	Nash Street at Main Street	3:05	4:16	2	5:26	3	3:07	1	6:28	4	6:31	5
	Hill Street at Main Street	3:51	3:42	1	5:11	3	3:46	2	7:21	5	5:38	4
	Marigold Street at Main Street	3:10	4:08	2	5:36	3	3:17	1	6:37	5	5:45	4
Average Rank		-	**1.6**		**2.8**		**1.8**		**4.6**		**4.3**	
Overall Rank		-	**1**		**3**		**2**		**5**		**4**	

Note: Alternatives are ranked 1 through 5, least travel time to most travel time.

In addition to estimating P.M. peak hour travel times for each alternative for the origins and destinations identified above, P.M. peak hour travel times were also estimated for emergency vehicles responding from Fire Station 1 to the intersection of Thomas Street and Church Street. Table 9 ranks the alternatives in terms of estimated P.M. peak hour travel times between Fire Station 1 and the intersection of Thomas Street and Church Street. The basis for the estimated travel times is shown in Table 13.

Table 9 Alternatives Ranked by Fire Station 1 P.M. Peak Hour Travel Times

Origin	Destination	No-Build	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
Fire Station 1	Thomas Street at Church Street	2:42	4:28	4:11	5:11	6:07	3:48
Rank		-	**3**	**2**	**4**	**5**	**1**

Note: Alternatives are ranked 1 through 5, least travel time to most travel time.

TRAFFIC QUEUES

One of the major concerns of stakeholders in the downtown area is the traffic queues expected to occur when the east-west one-way streets are converted to two-way operation. These concerns are magnified because of the combined impact of the traffic queues created when trains are passing through downtown temporarily stopping traffic from passing through downtown. The *SimTraffic* analysis outputs confirm that due to the reduced capacity of the intersections at the railroad crossings, traffic queues on the east-west streets are expected to increase when the streets are converted to two-way operation. Table 9 shows the estimated P.M. peak hour traffic queues for the east-west street on the approaches to Main Street. The alternatives were then ranked based on average estimated traffic queues by direction.

Table 10 Estimated Average P.M. Peak Hour Traffic Queues at Main Street

Street	No-Build		Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
Thomas St [1]	-	115’	-	75’	25’	200’	-	115’	160’	235’	100’	120’
Sunset Ave/Tarboro St [1]	180’	-	55’	-	340’	210’	100’	-	385’	205’	345’	235’
Western Ave/Hill St [1]	-	145’	385’	240’	220’	280’	-	-	-	-	100’	245’
Nash St/Marigold St [1]	55’	-	-	-	-	-	305’	160’	285’	175’	75’	75’
Average Queue [1]	118’	130’	220’	158’	195’	230’	203’	138’	277’	205’	155’	169’
Rank by Direction	-	-	4	2	2	5	3	1	5	4	1	3
Average Rank [2]	-		3		3.5		4		4.5		2	
Overall Rank [2]	-		2		3		4		5		1	

Notes: [1] The average block lengths along the east-west streets are 400’ for the eastbound streets and 270’ for the westbound streets.
[2] Alternatives are ranked 1 through 5, shortest queues to longest queues

As indicated in Table 8, the impact of converting the one-way streets to two-way operation significantly increased traffic queue lengths on the approaches to Main Street and the railroad crossings.

TRAFFIC CIRCULATION IMPACTS

In addition to the level of service results and estimated travel time impacts, a number of general observations can be made concerning the anticipated impact of the various alternatives on traffic circulation in the downtown area.

Both of the railroad crossings under consideration for closure will significantly impact traffic circulation in the downtown core. Closing either of the railroad crossings under consideration would require the conversion of Hill Street/Western Avenue and Nash Street/Marigold Street to two-way operation and eliminate one of only four existing signalized railroad crossings in the downtown area. As illustrated in the level of service results, closing the rail crossings in the downtown area would be expected to significantly disrupt existing traffic patterns and reduce mobility and accessibility in the downtown area. It may be desirable to convert a block of Main Street to two-way operation between in order to provide an acceptable level of accessibility.

Closing the Hill Street/Marigold Street railroad crossing will interrupt the counterclockwise traffic pattern downtown.

Closing the railroad crossing on Hill Street/Western Avenue would have less impact on the counterclockwise traffic circulation in the downtown than will closing the rail crossing on Nash Street/Marigold Street. If the rail crossing on Hill Street/Western Avenue were closed the existing counterclockwise circulation pattern would remain intact. However, if the Nash Street/Marigold Street rail crossing is closed, the existing counterclockwise circulation pattern will be interrupted and shortened by a block, significantly impact the accessibility of the land uses on the block of Main Street between Hill Street/Western Avenue and Nash Street/Marigold Street.

In addition to vehicular traffic pattern impacts, it is important to recognize that the proposed changes to vehicular traffic patterns will also impact pedestrian activity and travel patterns in the downtown area. Converting one-way streets to two-way streets increases the number of possible pedestrian-vehicle conflicts at intersections. However, two-way street should decrease vehicle speeds. Closing the railroad crossings in the downtown area will also impact pedestrians. Although a railroad crossing may be closed to vehicular traffic, it is vital that all crossings remain open to pedestrian traffic.

Table 11 Estimated P.M. Peak Hour Travel Times – Sunset Avenue/Grace Street

Origin	Destination	No-Build		Alternative 1		Alternative 2	
		Route	Travel Time [1]	Route	Travel Time [1]	Route	Travel Time [1]
Sunset Avenue at Grace Street	Nash Street at Main Street	Sunset -> Main	3:02	Sunset -> Main	2:33	Sunset -> Main	4:38
						Franklin -> Western -> SW Main	2:53
	Hill Street at Main Street	Sunset -> Main -> Nash -> SE Main	3:47	Sunset -> Main -> Western	1:59	Sunset -> Main -> Western	4:22
	Marigold Street at Main Street	Sunset -> Main -> Marigold	3:06	Sunset -> SW Main -> Western -> SE Main	2:25	Sunset -> SW Main -> Western -> SE Main	4:48
	Destination	**Alternative 3**		**Alternative 4**		**Alternative 5**	
	Nash Street at Main Street	Sunset -> Main	3:03	Sunset -> Main	4:53	Sunset -> Main	6:23
				Franklin -> Western -> SW Main	3:22	Franklin -> Western -> SW Main	3:53
	Hill Street at Main Street	Sunset -> Main -> Nash -> SE Main	3:42	Sunset -> Main -> Nash -> SE Main	5:46	Sunset -> Main -> Western	5:31
	Marigold Street at Main Street	Sunset -> Main -> Nash	3:13	Sunset -> Main -> Nash	5:03	Sunset -> Main -> Nash	6:36

Table 12 Estimated P.M. Peak Hour Travel Times – Thomas Street/Church Street

		No-Build		Alternative 1		Alternative 2	
Origin	**Destination**	**Route**	**Travel Time [1]**	**Route**	**Travel Time [1]**	**Route**	**Travel Time [1]**
Thomas Street at Atlantic Avenue	299 SW Main Nash Street @ S.W. Main Street	Sunset -> Main	3:05	Thomas -> Main	4:16	Thomas -> Main	5:26
	199 SE Main Hill Street at S.E. Main Street	Sunset -> Main -> Nash -> SE Main	3:51	Thomas -> Main -> Western	3:42	Thomas -> Main -> Western	5:11
	299 SE Main Marigold Street at S.E. Main Street	Sunset -> Main -> Marigold	3:10	Thomas -> Main -> Western -> SE Main	4:08	Thomas -> Main -> Western -> SE Main	5:36
	Destination	**Alternative 3**		**Alternative 4**		**Alternative 5**	
	299 SW Main Nash Street @ S.W. Main Street	Thomas -> Main	3:07	Thomas -> Main	6:28	Thomas -> Main	6:31
	199 SE Main Hill Street at S.E. Main Street	Thomas -> Main -> Nash -> SE Main	3:46	Thomas -> Main -> Nash -> SE Main	7:21	Thomas -> Main -> Western	5:38
	299 SE Main Marigold Street at S.E. Main Street	Thomas -> Main -> Nash	3:17	Thomas -> Main -> Nash	6:37	Thomas -> Main -> Nash	5:45

Table 13 Estimated P.M. Peak Hour Travel Times – Fire Station 1

		No-Build		Alternative 1		Alternative 2	
Origin	**Destination**	**Route**	**Travel Time [1]**	**Route**	**Travel Time [1]**	**Route**	**Travel Time [1]**
Fire Station 1	Thomas Street at Church Street	George -> Hill/Western -> Church	2:42	George -> Hill/Western -> Church	4:28	George -> Hill/Western -> Church	4:11
		Alternative 3		**Alternative 4**		**Alternative 5**	
		George -> Hill/Western -> Church	5:11	George -> Marigold/Nash -> Church	6:07	George -> Hill/Western -> Church	3:48

7.0 ECONOMIC IMPACTS

Analyses were performed to assess the relative impact of the alternatives on the economic development in the downtown area.

ONE-WAY STREET CONVERSIONS

Since World War II, the traditional response to increasing congestion levels through urban areas has been to improve the flow of motor vehicles by adopting one-way street operations. This strategy was designed to reduce congestion without having to widen streets or construct new facilities. From a traffic engineering perspective, the one-way street patterns cut down on pedestrian accidents, moved commuter traffic through downtowns more quickly, and allowed for better synchronization of traffic lights.

After 40 – 50 years, the majority of opinion and research now suggests that one-way streets may be more detrimental to downtowns than helpful. Studies suggest that one-way streets confuse and disorient visitors, speed traffic, intimidate pedestrians, and complicate access to businesses. Although they may enhance traffic flow through a retail area, one-way streets may also impede or discourage destination traffic to that retail area.

In the retail marketplace, they may diminish the attractiveness and value of properties that lose storefront exposure and evening peak traffic. Retail exposure and visibility is significantly reduced when one direction of traffic is removed, causing one side of cross streets to be effectively "eclipsed" from view. Since many shopping trips are conducted on the way home from work, retailers on one-way streets en route to employment centers could be negatively impacted.

During the 1990s, a national trend began to convert some one-way streets back to two-way traffic circulation systems. Since the late 1990s, a number of cities including Albuquerque, Austin, Chattanooga, Cincinnati, Des Moines, Portland (OR), Sacramento, Seattle, St. Paul, St. Petersburg, Tampa, and Toledo have either initiated or considered the conversion of their downtown one-way streets to two-way operations.

For example, since 1991, Lakeland, FL has completed two-way conversions on a number of one-way road pairs in its downtown area for the purpose of revitalizing the downtown core. In addition to increasing the visibility of retailers and restaurants, the strategy has helped slow traffic, enhance the pedestrian environment, and ease parking. Congestion increases and level of services (LOS) diminutions have been partly mitigated by the redistribution of traffic on the more highly connected road network.

RAIL CROSSING CLOSURES

In addition to posing serious threats to health and safety, urban at-grade railroad crossings can adversely impact a retail environment. Train-vehicle collisions not only result in death and injury, but also may cause destruction of property, fires, and explosions. These threats and the prospect of traffic delays may create significant physical and psychological barriers for potential retail visitors. By closing these crossings to vehicular traffic, the perception of safety and mobility within urban retail areas may be enhanced.

PEDESTRIAN SKETCH PLAN METHODOLOGY

A pedestrian sketch-plan is a method to estimate pedestrian volumes and subsequent retail sales impact under existing and future conditions in a retail pedestrian activity area. This tool is used to identify areas of pedestrian traffic based on existing traffic data without the need to conduct pedestrian counts on all facilities. In the absence of a comprehensive retail market analysis and study, a sketch-plan can also be used to forecast impacts to pedestrian volumes and retail traffic as a result of future land use and/or transportation trip generation changes.

Retail Traffic

In developing a model estimating the number of retail pedestrians on Main Street, the following assumptions were made based on our understanding of the downtown Rocky Mount area, and existing industry standards, and fitting or calibrating the sketch plan model to the results of our retail market overview:

- Commercial traffic (e.g. deliveries, business services), based on industry standards, is assumed to represent 5 percent of total traffic
- Destination traffic represents the number of vehicles on a purposeful trip (e.g. errand, going to work, going to residence, shopping)
- Given the existing retail environment and the business survey, and the calibration of traffic volumes to order of magnitude retail sales and future trends and scenarios, the retail capture rate of destination traffic is estimated to be 75 percent on Main Street
- The average vehicle occupancy based on industry standards is estimated at 1.5 persons per vehicle
- Total retail pedestrian generation (vehicle) represents the number of retail pedestrians accessing the Rocky Mount study area
- Given the walkability of Main Street, retail walk trips are assumed to represent 10 percent of all retail vehicular trips

Based on peak hour turning movements, the estimated Average Daily Traffic (ADT) on Main Street in 2003 was 3,760. Of this daily total, 752 vehicles or 20 percent was assumed to be through traffic and 188 vehicles or 5 percent was assumed to be commercial traffic including deliveries and business services. Of the remaining destination traffic, 2,820 vehicles or 75 percent are assumed to be retail-oriented traffic.

Given average vehicle occupancy of 1.5, this traffic represents 3,173 retail pedestrians accessing Main Street by vehicle on a daily basis. Ten percent of this total approximates the number of additional retail pedestrians that access the study area through walk-only trips. In total, the vehicles and walkers traveling along Main Street represent approximately 3,490 retail pedestrians per day for the study area.

OVERVIEW

Using the pedestrian sketch-plan methodology, the existing retail traffic patterns were applied to the future traffic forecasts under the varying traffic assumptions for a 2025 design year. The following summarizes our analysis of the retail sales implications for the varying traffic alternatives.

- The primary impact of transportation alternatives is expected to be the redistribution of traffic within the downtown area
- Case studies suggest that retail destination traffic will sacrifice speed for an easier circulation pattern and an enhanced pedestrian environment
- Surveys of existing businesses indicate that most of their customers represent purposeful destination trips rather than traffic-related impulse or intercept trips

Main Street

- Given the nature of existing retail activity, other factors outside of traffic patterns including the pedestrian environment, available parking, retail marketing, merchandising programs, number and type of merchandise/services offered, competing retail, and the socioeconomic profiles of downtown residents, employees, and visitors are likely to have a larger impact on retail sales
- The psychological impact of increased congestion may reduce projected retail sales

CONCLUSIONS

- Other factors besides traffic will likely influence retail sales more than traffic modifications
- By diverting additional traffic onto Main Street, Alternative 3 and Alternative 4 could potentially generate higher design year retail sales than the No-Build scenario
- Alternatives 3 and 4 create a positive impact and are projected to exceed No-Build retail sales by $7.8 million and $8.8 million or 14.1% and 15.9% respectively (average annual change of 0.6% and 0.7% respectively)
- Alternatives 1, 2, and 5 are projected to generate fewer design year retail traffic and sales than the No-Build scenario decreasing sales by $3.0 million, $2.4 million, and $3.6 million or 5.5%, 4.5%, and 6.5% respectively (average annual changes of 0.25%, 0.20%, and 0.29% respectively)
- All alternatives generate slightly more retail traffic than No-Build in the general area between the intersections of Main Street with Sunset Avenue and Hill Street/Western Avenue with Alternatives 3 and 4 generating moderately more retail traffic

- All alternatives generate slightly less retail traffic than No-Build in the general area between the intersections of Main Street with Thomas Street and Sunset Avenue
- Whereas Alternatives 3 and 4 generate slightly more retail traffic than No-Build along Main Street between Hill Street/Western Avenue and Nash Street/Marigold Street, Alternatives 1, 2, and 5 generate slightly less retail traffic

Table 14 Projected Retail Traffic and Sales

	Design Year 2025					
	No-Build	**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 4**	**Alternative 5**
Average Daily Traffic (ADT)	12,090	11,430	11,550	13,800	14,010	11,310
Average Daily Retail Pedestrians	11,221	10,608	10,720	12,808	13,003	10,497
Annual Retail Pedestrians	1,851,470	1,750,397	1,768,774	2,113,341	2,145,500	1,732,020
Annual Retail Sales	$55,544,105	$52,511,920	$53,063,227	$63,400,219	$64,365,005	$51,960,614
Change from No-Build	-	($3,032,184)	($2,480,878)	$7,856,114	$8,820,900	($3,583,491)
Retail Sales Percent Change from No-Build	-	-5.5%	-4.5%	14.1%	15.9%	-6.5%
Annual Retail Sales Percent Change from No-Build, 2003-2025	-	-0.2%	-0.2%	0.6%	0.7%	-0.3%
Rank	**-**	**4**	**3**	**2**	**1**	**5**

Sources: BBP Associates, Martin/Alexiou/Bryson

Figure 20 2025 Projected Retail Sales by Transportation Alternative

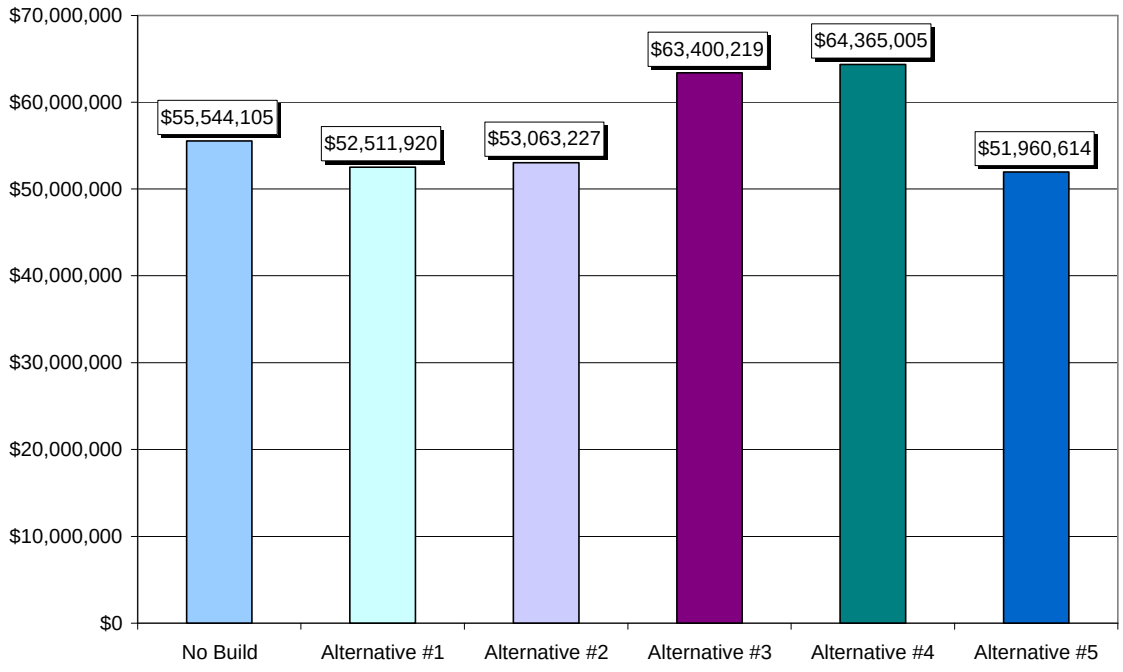

Table 15 Projected Change in Average Daily Traffic by Alternative

Main Street Segments	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Thomas - Sunset Southbound	0	430	0	430	430
Sunset - Thomas Northbound	-400	-990	-400	-990	-990
Thomas - Sunset Totals	**-400**	**-560**	**-400**	**-560**	**-560**
Percentage Change	**-8.5%**	**-11.9%**	**-8.5%**	**-11.9%**	**-11.9%**
Annual Percentage Change, 2003-2025	**-0.4%**	**-0.5%**	**-0.4%**	**-0.5%**	**-0.5%**
Sunset - Western Southbound	0	370	0	370	370
Western - Sunset Northbound	320	230	1,460	1,460	90
Sunset - Western Totals	**320**	**600**	**1,460**	**1,830**	**460**
Percentage Change	**8.1%**	**15.2%**	**37.1%**	**46.4%**	**11.7%**
Annual Percentage Change, 2003-2025	**0.4%**	**0.7%**	**1.7%**	**2.1%**	**0.5%**
Western - Nash Southbound	-910	-910	330	330	-560
Nash - Western Northbound	330	330	320	320	-120
Western - Nash Totals	**-580**	**-580**	**650**	**650**	**-680**
Percentage Change	**-12.4%**	**-12.4%**	**13.9%**	**13.9%**	**-14.5%**
Total Traffic	**-660**	**-540**	**1,710**	**1,920**	**-780**
Total Percentage Change	**-5.5%**	**-4.5%**	**14.1%**	**15.9%**	**-6.5%**
Annual Percentage Change, 2003-2025	**-0.2%**	**-0.2%**	**0.6%**	**0.7%**	**-0.3%**

Sources: Martin/Alexiou/Bryson, BBP Associates

Table 16 Retail Traffic Impact by Alternative

Main Street Intersection Areas	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Thomas - Sunset Totals	**-**	**-**	**-**	**-**	**-**
Sunset - Western Totals	**+**	**+**	**++**	**++**	**+**
Western - Nash Totals	**-**	**-**	**+**	**+**	**-**
Total Traffic	**-**	**-**	**+**	**+**	**-**

Sources: Martin/Alexiou/Bryson, BBP Associates

Slightly negative impact (-0.2% to -0.4% per year)	**-**
Slightly positive impact (0.4% to 0.7% per year)	**+**
Moderately positive impact (1.7% to 2.1% per year)	**++**

8.0 IMPLEMENTATION COSTS

In addition to evaluating the feasibility of closing either the Nash Street/Marigold Street or the Hill Street/Western Avenue at-grade railroad crossing and converting selecting one-way streets to two-way operation in terms of traffic operations and economic impact, the study also investigated the anticipated cost of the improvements required to implement the alternatives under evaluation. These preliminary cost estimates include items ranging from the cost of upgrading pavement markings to accommodate two-way traffic to realigning a portion of Sunset Avenue and Thomas Street in the vicinity of City Lake to facilitate the conversion of Sunset Avenue and Thomas Street to two-way operation. Cost estimates across the five (5) build alternative range from $600,000 to $2,300,000. More detail regarding the scope of the improvements associated with each of the build alternatives is provided below.

Table 17 Implementation Costs by Alternative

Alternative	Anticipated Implementation Cost	Rank
Alternative 1	$670,000	2
Alternative 2	$1,900,000	4
Alternative 3	$600,000	1
Alternative 4	$1,800,000	3
Alternative 5	$2,300,000	5

COSTS BY ALTERNATIVE

Alternative 1

It is anticipated that the improvements required to accommodate the closure of the Nash Street/Marigold Street crossing and the conversion of the Hill Street/Western Avenue crossing to two-way operation would be on the order of $670,000. In terms of specific improvements, the list includes:

- Remove the traffic signal and railroad crossing devices at the intersection of Nash Street/Marigold Street and Main Street,
- Construct a pedestrian crossing at the Nash Street/Marigold Street crossing to maintain pedestrian access between SW Main Street and SE Main Street,
- Upgrade 12 signalized intersections along Nash Street/Marigold Street and Hill Street/Western Avenue between George Street and Grace Street to accommodate two-way traffic,
- Upgrade the railroad protection devices (gates and flashers) at Hill Street/Western Avenue to accommodate two-way traffic,
- Remove the traffic signal at Marigold Street and Washington Street,
- Reconstruct the intersection of George Street and Hill Street to increase the turning radius for fire trucks turning right from George Street onto Hill Street,
- Install pavement markings along Nash Street/Marigold Street and Hill Street/Western Avenue and upgrade pavement markings at signalized intersections from George Street to Grace Street in order to accommodate two-way traffic.

Alternative 2

In addition to the improvements associated with Alternative 1, Alternative 2 includes the improvements required to accommodate the conversion of the Sunset Avenue/Tarboro Street and Thomas Street to two-way operation between City Lake and George Street. A preliminary sketch of the realignment of Sunset Avenue, Thomas Street, and Piedmont Avenue is included in Appendix F as Figures F-1 and F-2. Based on preliminary estimates, the cost associated with implementation of Alternative 2 is estimated to be on the order of $1,900,000. In addition to the improvements associated with Alternative 1, the list of improvements required to implement this alternative include:

- Upgrade an additional 14 signalized intersections along Sunset Avenue/Tarboro Street and Thomas Street George Street and Lee Street to accommodate two-way traffic (this brings the total number of intersection upgrades to 26),
- Upgrade the railroad protection devices (gates and flashers) at Sunset Avenue/Tarboro Street and Thomas Street to accommodate two-way traffic,
- Remove the traffic signals along West Thomas Street at Pine Street and at Lee Street,
- Install pavement markings along Sunset Avenue/Tarboro Street and Thomas Street and upgrade pavement markings at signalized intersections from west of City Lake to George Street,
- Realign Sunset Avenue between River Drive and Piedmont Avenue, realign West Thomas Street to a “T-intersection” with Sunset Avenue just west of the BP Gas Station, and realign Piedmont Avenue at its intersection with Sunset Avenue.

Alternative 3

It is anticipated that the improvements required to accommodate the closure of the Hill Street/Western Avenue crossing and the conversion of the Nash Street/Marigold Street crossing to two-way operation would be on the order of $600,000. In terms of specific improvements, the list includes:

- Remove the traffic signal and railroad crossing devices at the intersection Main Street and Hill Street/Western Avenue,
- Construct a pedestrian crossing at the Hill Street/Western Avenue crossing to maintain pedestrian access between SW Main Street and SE Main Street,
- Upgrade 12 signalized intersections along Nash Street/Marigold Street and Hill Street/Western Avenue between George Street and Grace Street to accommodate two-way traffic,
- Upgrade the railroad protection devices (gates and flashers) at Nash Street/Marigold Street to accommodate two-way traffic,
- Remove the traffic signal at Hill Street and Washington Street,
- Reconstruct the intersection of George Street and Marigold Street to increase the turning radius for fire trucks turning right from George Street onto Marigold Street,
- Install pavement markings along Nash Street/Marigold Street and Hill Street/Western Avenue and upgrade pavement markings at signalized intersections from George Street to Grace Street in order to accommodate two-way traffic.

Alternative 4

In addition to the improvements associated with Alternative 3, Alternative 4 includes the improvements required to accommodate the conversion of the Sunset Avenue/Tarboro Street and Thomas Street to two-way operation between City Lake and George Street.

Based on preliminary estimates, the cost associated with implementation of Alternative 2 is estimated to be on the order of $1,800,000. In addition to the improvements associated with Alternative 3, the list of improvements required to implement this alternative include:

- Upgrade an additional 14 signalized intersections along Sunset Avenue/Tarboro Street and Thomas Street George Street and Lee Street to accommodate two-way traffic (this brings the total number of intersection upgrades to 26),
- Upgrade the railroad protection devices (gates and flashers) at Sunset Avenue/Tarboro Street and Thomas Street to accommodate two-way traffic,
- Remove the traffic signals along West Thomas Street at Pine Street and at Lee Street,
- Install pavement markings along Sunset Avenue/Tarboro Street and Thomas Street and upgrade pavement markings at signalized intersections from west of City Lake to George Street,
- Realign Sunset Avenue between River Drive and Piedmont Avenue, realign West Thomas Street to a "T-intersection" with Sunset Avenue just west of the BP Gas Station, and realign Piedmont Avenue at its intersection with Sunset Avenue.

Alternative 5

The improvements required to convert the Nash Street/Marigold Street – Hill Street/Western Avenue, Thomas Street-Sunset Avenue/Tarboro Street, and Church Street-Franklin Street one-way pairs to two-way operation, include a majority of the improvements associated with the four (4) build alternatives which included a rail crossing closure. Taking into account these improvements, as well as the changes required to accommodate the conversion of the Church Street-Franklin Street one-way pair to two-way operation, it is anticipated that the total cost to implement this alternative would be on the order of $2,300,000. A preliminary sketch of the realignment of Franklin Street at North Church Street and the reconfiguration of the intersection of Franklin Street and Bassett Street is included in Appendix F as Figures F-3 and F-4.

In terms of specific improvements required to implement Alternative 5, the list includes:

- Upgrade 26 signalized intersections along Nash Street/Marigold Street, Hill Street/Western Avenue, Sunset Avenue/Tarboro Street, and Thomas Street between George Street and Lee Street to accommodate two-way traffic,
- Upgrade the railroad protection devices (gates and flashers) at all four at-grade railroad crossings downtown (Thomas Street to Nash Street/Marigold Street) to accommodate two-way traffic,
- Remove the traffic signals along West Thomas Street at Pine Street and at Lee Street,
- Install pavement markings along Nash Street/Marigold Street, Hill Street/Western Avenue, Sunset Avenue/Tarboro Street, and Thomas Street and upgrade pavement markings at signalized intersections from west of City Lake to George Street,
- Reconstruct the intersection of George Street and Hill Street to increase the turning radius for fire trucks turning right from George Street onto Hill Street,
- Realign Sunset Avenue between River Drive and Piedmont Avenue, realign West Thomas Street to a T-intersection with Sunset Avenue just west of the Kangaroo Express BP Gas Station, and realign Piedmont Avenue at its intersection with Sunset Avenue.

- Realign Franklin Street at its intersection with North Church Street to create a “T-intersection”,
- Reconstruct intersection of Franklin Street and Bassett Street to accommodate two-way traffic on Franklin Street north of Bassett Street.
- Install pavement markings along Church Street and along Franklin Street and upgrade pavement markings at signalized intersections from the intersection of Franklin Street and North Church Street to Bassett Street.

CONCLUSIONS

Because of the wider area of impact, Alternatives 2, 4, and 5 have much higher implementation costs than Alternatives 1 and 3. Overall, Alternative 3 has the lowest implementation cost at $600,000 followed by Alternative 1 at $670,000.

9.0 PUBLIC PARTICIPATION

Public participation was a vital component of this project. Multiple opportunities were available for stakeholders to participate in the development of this project. As discussed in earlier sections of this report, stakeholders were interviewed as part of the economic analysis. Those interviews provided valuable insight into the history and future of business in the downtown area. In addition to the interviews, stakeholders were invited to two meetings to discuss the project. Stakeholders at both meetings were very involved and showed great interest in the direction of the project.

The first stakeholders meeting was held on November 4, 2004. Eleven stakeholders attended the meeting and topics of discussion included parking, the study area definition, future year traffic projections, the conversion of Sunset Avenue/Tarboro Street and Thomas Street to two-way operation, the inclusion of the railroad crossings on Goldleaf Street and Bassett Street, preferences to close the railroad crossing on Hill Street/Western Avenue instead of Nash Street/Marigold Street, and maintaining the counterclockwise traffic pattern on Main Street.

The project team presented the preliminary project work efforts to the planning board during their work session on November 9. Many of the same topics discussed at the stakeholder meeting on November 4 were discussed during the planning board work session. The topics of discussion included the purpose of the study, street cross-sections of streets if converted to two-way operation, anticipated economic impacts, possible changes to the railroad alignment, and difficulties downtown visitors have reported when traveling downtown. Based on feedback from this meeting, the project team began development of preliminary analysis scenarios.

Nine stakeholders attended a second stakeholders meeting on November 11, 2004. Many of the same topics discussed at the stakeholders meeting on November 4 were again discussed. The topics of discussion included the impacts of converting east-west streets to two-way operation with and without railroad closures, the impacts of closing railroad crossing in terms of traffic operations and economic development, possible conversion of Main Street to two-way operation, and the impact of converting Franklin Street and Church Street to two-way operation.

Based on the stakeholder and planning board meetings, the project team developed the five scenarios of future year conditions analyzed in this report.

On February 8, 2005, the project team attended a second planning board work session to present the preliminary analysis results. In addition to discussing the preliminary level of service results, board members were interested in the economic impacts of the proposed alternatives. The project team indicated that telephone interviews had been initiated in order to gather information directly from the stakeholders in the downtown area. Some members of the planning board again expressed concern that the scope of the project did not include the railroad crossings at Goldleaf Street and Bassett Street.

The feedback gathered at the stakeholder meetings provided a clear understanding of the local sentiment and provided direction for the development of the analysis scenarios included in this report. The active participation of the local stakeholders and planning board members ensured that the project continued to focus on issues that are important to the local community. Notes from the stakeholder and planning board meetings held during the development of this project are included in Appendix E.

10.0 FINDINGS AND RECOMMENDATIONS

LEVEL OF SERVICE ANALYSIS RESULTS

The level of service results indicate that the intersections adjacent to the railroad tracks (Main Street) are the most affected by the changes in traffic associated with the various alternatives. This is due to the geometry of the intersections that will result should the streets crossing the railroad be converted to two-way operation. Because of the location of the railroad crossings, the intersections adjacent to the railroad tracks are extremely wide. The location of the railroad tracks in close proximity to Main Street creates two very closely spaced intersections on each side of the railroad tracks that are operate as a single intersection. Fortunately, with the east-west streets being one-way, it is possible to provide an acceptable level of service. However, should the east-west streets be converted to two-way operation, the signal phasing would become much more complex. With such a wide intersection and the location of the railroad tracks, it is not feasible to allow permitted left-turn movements. Therefore, each approach to the intersection requires a protected phase within the traffic signal cycle. This increases the signal cycle length and increased delays for each approach to the intersection. This effect is apparent in the level of service results for Alternative 1 through 5. The following tables summarize the level of service analyses in terms of average vehicle delay and travel speeds for each alternative.

Alternative	Average Vehicle Delay (sec/veh)				Average Rank	Overall Rank
	A.M. Peak	Rank	P.M. Peak	Rank		
No-Build Conditions	00:11	-	00:12	-	-	-
Alternative 1	00:17	1	00:19	2	1.5	**2**
Alternative 2	00:24	5	00:26	3	4	**3**
Alternative 3	00:17	1	00:14	1	1	**1**
Alternative 4	00:20	4	00:30	4	4	**3**
Alternative 5	00:19	3	00:42	5	4	**3**

Note: Alternatives are ranked 1 through 5, lowest average delay to highest average delay.

Alternative	Average Vehicle Speed (mph)				Average Rank	Overall Rank
	A.M. Peak	Rank	P.M. Peak	Rank		
No-Build Conditions	14	-	13	-	-	-
Alternative 1	11	1	10	2	1.5	**2**
Alternative 2	9	5	9	3	4	**3**
Alternative 3	11	1	12	1	1	**1**
Alternative 4	10	4	8	4	4	**3**
Alternative 5	11	1	6	5	3	**3**

Note: Alternatives are ranked 1 through 5, highest average speed to lowest average speed.

In terms of average vehicle delay and average vehicle travel speeds, Alternative 3 results in less delay and higher travel speeds in comparison to the other alternatives.

OTHER SYSTEM MEASURES

Analysis of P.M. Peak hour travel times for alternatives 1 through 5 indicate that number of streets that are converted to two-way operation increases so does the estimated travel time across the study area. As travel time increases through and about the study area, motorists, especially commuters may eventually find more convenient routes through downtown or may divert around downtown all together. The table below shows how the alternatives rank relative to one another based on the estimated P.M. peak hour travel times for the origins and destinations shown.

Alternative Ranking by P.M. Peak Hour Travel Time

Origin	Destination	No-Build	Alt. 1		Alt. 2		Alt. 3		Alt. 4		Alt. 5	
		Travel Time	Travel Time	Rank	Travel Time	Rank	Travel Time	Rank	Travel Time	Rank	Travel Time	Rank
Sunset Avenue at Grace Street	Nash Street at Main Street	3:02	2:33	1	2:53	2	3:03	3	3:22	4	3:53	5
	Hill Street at Main Street	3:47	1:59	1	4:22	3	3:42	2	5:46	5	5:31	4
	Marigold Street at Main Street	3:06	2:25	1	4:48	3	3:13	2	5:03	5	6:36	4
Thomas Street at Atlantic Avenue	Nash Street at Main Street	3:05	4:16	2	5:26	3	3:07	1	6:28	4	6:31	5
	Hill Street at Main Street	3:51	3:42	1	5:11	3	3:46	2	7:21	5	5:38	4
	Marigold Street at Main Street	3:10	4:08	2	5:36	3	3:17	1	6:37	5	5:45	4
Average Rank		-	**1.6**		**2.8**		**1.8**		**4.6**		**4.3**	
Overall Rank		-	**1**		**3**		**2**		**5**		**4**	

Note: Alternatives are ranked 1 through 5, least travel time to most travel time.

Emergency vehicles are affected by changes to the downtown street operations just as other vehicles traveling in the downtown area. Analysis of estimated peak hour travel times for emergency vehicles from Fire Station 1 to the intersection of Thomas Street and Church Street indicate that Alternatives 3 and 4 would have the most significant impact on travel time. The table below ranks the alternative relative to one another based on the estimated peak hour travel times between Fire Station 1 and the intersection of Thomas Street and Church Street. While the results indicate an increase in travel time, responding to the intersection of Thomas Street and Church Street is the worst-case scenario for Fire Station 1. The intersection of Thomas Street and Church Street is in the far reaches of the response area for Fire Station 1 and the travel times analyzed in this study are for the P.M. peak hour. Travel times during off-peak periods would not be expected to reach these levels.

Alternative Ranking by Fire Station 1 P.M. Peak Hour Travel Time

Origin	Destination	No-Build	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
Fire Station 1	Thomas Street at Church Street	2:42	4:28	4:11	5:11	6:07	3:48
Rank		-	**3**	**2**	**4**	**5**	**1**

Note: Alternatives are ranked 1 through 5, least travel time to most travel time.

Simtraffic analysis outputs indicate that the conversion of the east-west streets to two-way operation will result in significant increases in traffic queues on the approaches to Main Street. The table below shows the how the alternatives rank relative to one another based on estimated P.M. peak hour traffic queues.

Alternative Ranking by P.M. Peak Hour Traffic Queues at Main Street

Street	No-Build		Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
Thomas St	-	115'	-	75'	25'	200'	-	115'	160'	235'	100'	120'
Sunset Ave/Tarboro St	180'	-	55'	-	340'	210'	100'	-	385'	205'	345'	235'
Western Ave/Hill St	-	145'	385'	240'	220'	280'	-	-	-	-	100'	245'
Nash St/Marigold St	55'	-	-	-	-	-	305'	160'	285'	175'	75'	75'
Average Queue	118'	130'	220'	158'	195'	230'	203'	138'	277'	205'	155'	169'
Rank by Direction	-	-	4	2	2	5	3	1	5	4	1	3
Average Rank	-		3		3.5		4		4.5		2	
Overall Rank	-		2		3		4		5		1	

Notes: [1] The average block lengths along the east-west streets are 400' for the eastbound streets and 270' for the westbound streets.
[2] Alternatives are ranked 1 through 5, shortest queues to longest queues

Certain conclusions can also be drawn based the impact that closing a railroad crossing would have in the downtown area. Stakeholders have indicated a desire to maintain current counterclockwise traffic pattern on Main Street. Closing the railroad crossing Nash Street/Marigold Street will disrupt that traffic pattern. However, closing the rail crossing on Hill Street/Western Avenue allows the counterclockwise traffic pattern on Main Street between Thomas Street and Nash Street/Marigold Street to be maintained.

ECONOMIC IMPACTS

Analyses were also performed to assess the relative economic impact of each alternative. The analyses included interviewing the downtown stakeholders to assess the current business climate in the downtown area and to gauge the economic future of the downtown area. A model was developed to assess the relative economic impacts of each alternative based on the prevailing traffic patterns created by each alternative. The conclusions of the economic analysis is summarized below:

- Other factors besides traffic will likely influence retail sales more than traffic modifications
- By diverting additional traffic onto Main Street, Alternative 3 and Alternative 4 could potentially generate higher design year retail sales than the No-Build scenario
- Alternatives 3 and 4 create a positive impact and are projected to exceed No-Build retail sales by $7.8 million and $8.8 million or 14.1% and 15.9% respectively (average annual change of 0.6% and 0.7% respectively)
- Alternatives 1, 2, and 5 are projected to generate fewer design year retail traffic and sales than the No-Build scenario decreasing sales by $3.0 million, $2.4 million, and $3.6 million or 5.5%, 4.5%, and 6.5% respectively (average annual changes of 0.25%, 0.20%, and 0.29% respectively)
- All alternatives generate slightly more retail traffic than No-Build in the general area between the intersections of Main Street with Sunset Avenue and Hill Street/Western Avenue with Alternatives 3 and 4 generating moderately more retail traffic
- All alternatives generate slightly less retail traffic than No-Build in the general area between the intersections of Main Street with Thomas Street and Sunset Avenue
- Whereas Alternatives 3 and 4 generate slightly more retail traffic than No-Build along Main Street between Hill Street/Western Avenue and Nash Street/Marigold Street, Alternatives 1, 2, and 5 generate slightly less retail traffic

The table below summarizes the impact of each alternative on retail sales in the downtown area.

	No-Build	**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 4**	**Alternative 5**
Annual Retail Sales	$55.5 M	$52.5 M	$53.0 M	$63.40 M	$64.37 M	$51.0
Rank	**-**	**4**	**3**	**2**	**1**	**5**

IMPLEMENTATION COSTS

In addition to evaluating the feasibility of closing either the Nash Street/Marigold Street or the Hill Street/Western Avenue at-grade railroad crossing and converting selecting one-way streets to two-way operation in terms of traffic operations and economic impact, the study also investigated the anticipated cost of the improvements required to implement the alternatives under evaluation. These preliminary cost estimates include items ranging from the cost of upgrading pavement markings to accommodate two-way

traffic to realigning a portion of Sunset Avenue and Thomas Street in the vicinity of City Lake to facilitate the conversion of Sunset Avenue and Thomas Street to two-way operation. Cost estimates across the five (5) build alternative range from $600,000 to $2,300,000. The table below includes a summary of the anticipated improvements associated with each of the alternatives. More detail regarding the scope of the improvements associated with each of the build alternatives is provided below. The table below ranks the alternatives relative to one another based on the anticipated implementation cost.

Alternative Ranking by Implementation Cost

Alternative	Anticipated Implementation Cost	Rank
Alternative 1	$670,000	**2**
Alternative 2	$1,900,000	**4**
Alternative 3	$600,000	**1**
Alternative 4	$1,800,000	**3**
Alternative 5	$2,300,000	**5**

OVERALL ALTERNATIVE RANKING

A number of measures were developed in this study to assess the impact of each alternative on traffic operations in the downtown area. The alternative has been ranked relative to one based on each of these alternatives. The table below summarizes those rankings based on average vehicle delay, average vehicle speed, average P.M. peak hour traffic queues at Main Street, average P.M. peak hour travel time between specified origins, average P.M. peak hour travel times between Fire Station 1 and the intersection of Thomas Street and Church Street, anticipated Implementation Costs, and impact on retail traffic.

Overall Alternative Ranking

Alternative	Average Vehicle Delay	Average Vehicle Speed	Average P.M. Peak Hour Queues	Average P.M. Peak Hour Travel Times	Average Fire Station 1 P.M. Peak Hour Travel Times	Anticipated Implementation Cost	Impact on Retail Traffic	Average Ranking	Overall Ranking
1	2	2	2	1	3	2	4	2.3	**2**
2	3	3	3	3	2	4	3	3.0	**3**
3	1	1	4	2	4	1	2	2.1	**1**
4	3	3	5	5	5	3	1	3.6	**5**
5	3	3	1	4	1	5	5	3.1	**4**

RECOMMENDATIONS

This report includes a relatively detailed evaluation of the implications of closing one of the existing at-grade railroad crossings and the conversion of one-way streets to two-way operation in the downtown area. However, in addition to the impacts measured in this report, there are a wide range of other impacts that must factor into any decision

concerning changes to traffic circulation in the downtown study area. With that said, the intent of this study is to quantify the impacts of the various alternatives under consideration in terms of traffic operations and economic impact and to compare the alternatives to one another based on those impacts.

The alternatives considered in this study result have varying impacts on traffic operations and the economic outlook in the downtown area. However, based on the results of the analyses in this study, Alternative 3 ranks the highest in comparison to all the other alternatives. If implemented, Alternative 3 would be expected to result in increased delay in the study area, but it is expected to have a positive impact on retail traffic in the downtown area and to have the lowest implementation cost of all the alternatives considered.

The improvements required to implement Alternative 3 are estimated to cost $600,000. Alternative 3 requires the following improvements:

- Remove the traffic signal and railroad crossing devices at the intersection of Hill Street/Western Avenue,
- Construct a pedestrian crossing at the Hill Street/Western Avenue crossing to maintain pedestrian access between SW Main Street and SE Main Street,
- Upgrade 12 signalized intersections along Nash Street/Marigold Street and Hill Street/Western Avenue between George Street and Grace Street to accommodate two-way traffic,
- Upgrade the railroad protection devices (gates and flashers) at Nash Street/Marigold Street to accommodate two-way traffic,
- Remove the traffic signal at Hill Street and Washington Street,
- Reconstruct the intersection of George Street and Marigold Street to increase the turning radius for fire trucks turning right from George Street onto Marigold Street,
- Install pavement markings along Nash Street/Marigold Street and Hill Street/Western Avenue and upgrade pavement markings at signalized intersections from George Street to Grace Street in order to accommodate two-way traffic.

Due to the reduction in traffic on streets affect by the proposed closure of railroad crossings, it may be possible to remove the existing traffic signals at some intersections. Possible candidates for removal of traffic signals if the railroad crossings are closed include:

- Nash Street/Marigold Street at Main Street
- Marigold Street at Washington Street
- West Thomas Street at Pine Street and at Lee Street
- Hill Street/Western Avenue at Main Street

It is recommended, even though vehicular rail crossings may be closed, that pedestrian crossings of the railroad tracks be maintained and that the pedestrian crossings be designed to be safe and ADAA compliant.

APPENDICES

APPENDIX A:

CSX TRAIN INTERRUPTIONS

Train Preemption Summary

Tuesday, March 1 thru Monday, March 7, 2005

Main St. & Marigold St./Nash St.			Hill St./Western Ave. & Main St.			Main St. & Sunset Ave./Tarboro St.			Main St. & Thomas St. & Washington St.			
# of preempts	Day	Duration	# of preempts	Started	Duration	# of preempts	Started	Duration	# of preempts	Started	Duration	
38	Tuesday	1:37	38	Tuesday	1:58	38	Tuesday	1:47	35	Tuesday	1:42	7:04
43	Wednesday	2:14	43	Wednesday	2:28	43	Wednesday	2:29	41	Wednesday	2:18	9:29
49	Thursday	2:14	46	Thursday	2:36	46	Thursday	2:29	43	Thursday	2:30	9:49
42	Friday	1:59	49	Friday	2:21	41	Friday	2:04	37	Friday	2:01	8:25
42	Saturday	2:07	42	Saturday	2:24	42	Saturday	2:26	39	Saturday	2:25	9:22
40	Sunday	2:05	41	Sunday	2:20	39	Sunday	2:14	38	Sunday	2:06	8:45
36	Monday	1:42	36	Monday	1:56	36	Monday	1:53	34	Monday	1:48	7:19
290		13:58	295		16:03	285		15:22	267		14:50	60:13:00

Train Preemption

Tuesday, March 1, 2005

Main St. & Marigold St./Nash St.				Hill St./Western Ave. & Main St.				Main St. & Sunset Ave./Tarboro St.				Main St. & Thomas St. & Washington St.			
#	Started	Ended	Duration	#	Started	Ended	Duration	#	Started	Ended	Duration	#	Started	Ended	Duration
1	01:37	01:40	0:03	1	01:37	01:40	0:03	1	01:37	01:40	0:03	1	01:37	01:39	0:02
2	02:09	02:13	0:04	2	02:08	02:13	0:05	2	02:08	02:13	0:05	2	02:09	02:13	0:04
3	03:59	04:02	0:03	3	03:58	04:02	0:04	3	03:58	04:02	0:04	3	03:58	04:02	0:04
4	04:42	04:44	0:02	4	04:42	04:44	0:02	4	04:42	04:44	0:02	4	04:42	04:45	0:03
5	04:52	05:00	0:08	5	04:52	05:00	0:08	5	04:52	05:00	0:08	5	04:53	05:01	0:08
6	05:19	05:21	0:02	6	05:19	05:21	0:02	6	05:19	05:21	0:02	6	05:19	05:21	0:02
7	05:25	05:26	0:01	7	05:25	05:26	0:01	7	05:26	05:26	0:00				
8	05:28	05:29	0:01	8	05:28	05:30	0:02	8	05:28	05:30	0:02	7	05:28	05:30	0:02
9	06:24	06:27	0:03	9	06:23	06:27	0:04	9	06:24	06:27	0:03	8	06:24	06:27	0:03
10	06:53	06:55	0:02	10	06:52	06:55	0:03	10	06:53	06:55	0:02	9	06:53	06:55	0:02
11	08:03	08:06	0:03	11	08:03	08:06	0:03	11	08:03	08:07	0:04	10	08:04	08:07	0:03
12	09:51	09:55	0:04	12	09:49	09:55	0:06	12	09:49	09:55	0:06	11	09:48	09:54	0:06
13	10:27	10:28	0:01	13	10:27	10:28	0:01	13	10:27	10:28	0:01	12	10:27	10:28	0:01
14	10:38	10:39	0:01	14	10:37	10:39	0:02	14	10:38	10:39	0:01	13	10:38	10:39	0:01
15	10:54	10:55	0:01	15	10:53	10:55	0:02	15	10:53	10:54	0:01	14	10:52	10:54	0:02
16	11:08	11:10	0:02	16	11:08	11:11	0:03	16	11:09	11:11	0:02	15	11:09	11:11	0:02
17	12:11	12:18	0:07	17	12:09	12:17	0:08	17	12:09	12:16	0:07	16	12:08	12:15	0:07
18	13:17	13:21	0:04	18	13:16	13:21	0:05	18	13:16	13:22	0:06	17	13:18	13:22	0:04
19	13:30	13:31	0:01	19	13:30	13:31	0:01	19	13:30	13:31	0:01				
20	13:35	13:36	0:01	20	13:35	13:36	0:01	20	13:35	13:36	0:01	18	13:35	13:36	0:01
21	13:55	13:56	0:01	21	13:55	13:56	0:01	21	13:55	13:56	0:01				
22	13:59	14:00	0:01	22	13:59	14:01	0:02	22	14:00	14:01	0:01	19	14:00	14:01	0:01
23	14:23	14:24	0:01	23	14:23	14:24	0:01	23	14:23	14:24	0:01	20	14:24	14:24	0:00
24	14:28	14:29	0:01	24	14:28	14:30	0:02	24	14:28	14:30	0:02	21	14:29	14:30	0:01
25	14:52	14:56	0:04	25	14:51	14:56	0:05	25	14:52	14:57	0:05	22	14:53	14:57	0:04
26	15:29	15:30	0:01	26	15:29	15:30	0:01	26	15:29	15:30	0:01	23	15:28	15:29	0:01
27	16:05	16:06	0:01	27	16:04	16:05	0:01	27	16:04	16:05	0:01	24	16:03	16:05	0:02
28	17:07	17:09	0:02	28	17:07	17:09	0:02	28	17:07	17:08	0:01	25	17:06	17:08	0:02
29	19:41	19:43	0:02	29	19:41	19:43	0:02	29	19:41	19:43	0:02	26	19:41	19:43	0:02
30	19:57	20:00	0:03	30	19:56	20:00	0:04	30	19:56	19:59	0:03	27	19:55	19:59	0:04
31	20:01	20:02	0:01	31	20:01	20:02	0:01	31	20:00	20:02	0:02	28	20:00	20:01	0:01
32	20:34	20:37	0:03	32	20:33	20:36	0:03	32	20:33	20:36	0:03	29	20:33	20:36	0:03
33	20:46	20:48	0:02	33	20:45	20:48	0:03	33	20:45	20:47	0:02	30	20:45	20:47	0:02
34	20:51	20:57	0:06	34	20:49	20:57	0:08	34	20:49	20:56	0:07	31	20:48	20:55	0:07
35	21:13	21:16	0:03	35	21:12	21:16	0:04	35	21:12	21:15	0:03	32	21:11	21:14	0:03
36	22:36	22:40	0:04	36	22:36	22:40	0:04	36	22:36	22:40	0:04	33	22:35	22:40	0:05
37	22:51	22:55	0:04	37	22:50	22:55	0:05	37	22:50	22:54	0:04	34	22:50	22:54	0:04
38	23:11	23:14	0:03	38	23:10	23:13	0:03	38	23:10	23:13	0:03	35	23:10	23:13	0:03
			1:37				**1:58**				**1:47**				**1:42**

Train Preemption

Wednesday, March 2, 2005

Main St. & Marigold St./Nash St.				Hill St./Western Ave. & Main St.				Main St. & Sunset Ave./Tarboro St.				Main St. & Thomas St. & Washington St.			
#	Started	Ended	Duration	#	Started	Ended	Duration	#	Started	Ended	Duration	#	Started	Ended	Duration
1	00:02	00:03	0:01	1	00:02	00:03	0:01	1	00:01	00:03	0:02	1	00:01	00:02	0:01
2	00:05	00:09	0:04	2	00:04	00:10	0:06	2	00:05	00:10	0:05	2	00:06	00:10	0:04
3	00:24	00:26	0:02	3	00:24	00:27	0:03	3	00:24	00:27	0:03	3	00:24	00:27	0:03
4	02:16	02:25	0:09	4	02:15	02:24	0:09	4	02:15	02:23	0:08	4	02:15	02:22	0:07
5	03:40	03:41	0:01	5	03:40	03:41	0:01	5	03:40	03:41	0:01	5	03:39	03:40	0:01
6	04:00	04:08	0:08	6	04:00	04:08	0:08	6	04:00	04:09	0:09	6	04:00	04:09	0:09
7	04:22	04:24	0:02	7	04:22	04:24	0:02	7	04:22	04:24	0:02	7	04:22	04:24	0:02
8	05:03	05:05	0:02	8	05:03	05:05	0:02	8	05:03	05:05	0:02	8	05:04	05:06	0:02
9	05:15	05:16	0:01	9	05:15	05:16	0:01	9	05:15	05:16	0:01	9	05:16	05:16	0:00
10	05:17	05:19	0:02	10	05:18	05:19	0:01	10	05:18	05:19	0:01	10	05:18	05:19	0:01
11	05:54	05:56	0:02	11	05:54	05:56	0:02	11	05:53	05:56	0:03	11	05:53	05:56	0:03
12	06:19	06:25	0:06	12	06:18	06:25	0:07	12	06:18	06:26	0:08	12	06:19	06:26	0:07
13	06:32	06:34	0:02	13	06:32	06:34	0:02	13	06:32	06:35	0:03	13	06:33	06:35	0:02
14	06:50	06:56	0:06	14	06:50	06:55	0:05	14	06:50	06:55	0:05	14	06:49	06:54	0:05
15	07:25	07:27	0:02	15	07:25	07:27	0:02	15	07:25	07:27	0:02	15	07:25	07:27	0:02
16	09:25	09:29	0:04	16	09:24	09:28	0:04	16	09:24	09:28	0:04	16	09:24	09:28	0:04
17	09:32	09:34	0:02	17	09:32	09:35	0:03	17	09:32	09:35	0:03	17	09:32	09:35	0:03
18	10:19	10:21	0:02	18	10:19	10:21	0:02	18	10:20	10:21	0:01	18	10:22	10:24	0:02
19	10:22	10:23	0:01	19	10:22	10:23	0:01	19	10:22	10:23	0:01				
20	10:44	10:45	0:01					20	10:44	10:45	0:01	19	10:44	10:46	0:02
21	10:58	11:04	0:06	20	10:58	11:04	0:06	21	10:58	11:05	0:07	20	10:59	11:05	0:06
22	12:11	12:13	0:02	21	12:10	12:13	0:03	22	12:10	12:13	0:03	21	12:10	12:12	0:02
				22	13:08	13:08	0:00								
23	13:21	13:22	0:01	23	13:21	13:22	0:01	23	13:21	13:22	0:01				
24	13:25	13:26	0:01	24	13:25	13:27	0:02	24	13:26	13:27	0:01	22	13:26	13:27	0:01
25	13:43	13:44	0:01	25	13:43	13:44	0:01	25	13:43	13:44	0:01				
26	13:47	13:48	0:01	26	13:47	13:48	0:01	26	13:47	13:48	0:01	23	13:47	13:48	0:01
27	14:32	14:40	0:08	27	14:32	14:40	0:08	27	14:33	14:39	0:06	24	14:33	14:39	0:06
28	14:53	14:56	0:03	28	14:53	14:56	0:03	28	14:53	14:56	0:03	25	14:53	14:56	0:03
29	15:21	15:32	0:11	29	15:20	15:31	0:11	29	15:19	15:31	0:12	26	15:19	15:30	0:11
30	15:35	15:36	0:01	30	15:34	15:36	0:02	30	15:34	15:35	0:01	27	15:33	15:35	0:02
31	15:51	15:52	0:01	31	15:51	15:52	0:01	31	15:51	15:52	0:01	28	15:51	15:52	0:01
32	16:28	16:31	0:03	32	16:28	16:32	0:04	32	16:28	16:32	0:04	29	16:27	16:28	0:01
												30	16:29	16:32	0:03
33	16:50	16:57	0:07	33	16:49	16:57	0:08	33	16:49	16:57	0:08	31	16:50	16:58	0:08
34	17:45	17:48	0:03	34	17:45	17:48	0:03	34	17:45	17:48	0:03	32	17:45	17:48	0:03
35	18:47	18:53	0:06	35	18:45	18:53	0:08	35	18:45	18:52	0:07	33	18:45	18:51	0:06
36	19:11	19:12	0:01	36	19:11	19:12	0:01	36	19:11	19:12	0:01	34	19:10	19:12	0:02
37	19:37	19:38	0:01	37	19:36	19:38	0:02	37	19:36	19:38	0:02	35	19:36	19:38	0:02
38	19:43	19:49	0:06	38	19:42	19:49	0:07	38	19:41	19:48	0:07	36	19:40	19:48	0:08
39	21:22	21:24	0:02	39	21:21	21:24	0:03	39	21:21	21:23	0:02	37	21:21	21:23	0:02
40	21:56	21:58	0:02	40	21:56	21:58	0:02	40	21:55	21:58	0:03	38	21:55	21:58	0:03
41	22:16	22:17	0:01	41	22:15	22:17	0:02	41	22:15	22:17	0:02	39	22:15	22:17	0:02
42	22:39	22:44	0:05	42	22:38	22:44	0:06	42	22:38	22:44	0:06	40	22:40	22:44	0:04
43	23:07	23:08	0:01	43	23:07	23:08	0:01	43	23:06	23:08	0:02	41	23:06	23:07	0:01
			2:14				**2:28**				**2:29**				**2:18**

Train Preemption

Thursday, March 3, 2005

Main St. & Marigold St./Nash St.				Hill St./Western Ave. & Main St.				Main St. & Sunset Ave./Tarboro St.				Main St. & Thomas St. & Washington St.			
#	Started	Ended	Duration	#	Started	Ended	Duration	#	Started	Ended	Duration	#	Started	Ended	Duration
1	00:58	01:01	0:03	1	00:58	01:01	0:03	1	00:58	01:01	0:03	1	00:59	01:02	0:03
2	01:32	01:37	0:05	2	01:31	01:37	0:06	2	01:30	01:36	0:06	2	01:30	01:36	0:06
3	01:46	01:51	0:05	3	01:45	01:50	0:05	3	01:45	01:50	0:05	3	01:44	01:49	0:05
4	02:24	02:27	0:03	4	02:22	02:27	0:05	4	02:22	02:26	0:04	4	02:20	02:26	0:06
5	02:46	02:48	0:02	5	02:46	02:48	0:02	5	02:46	02:48	0:02	5	02:46	02:48	0:02
6	03:41	03:43	0:02	6	03:40	03:43	0:03	6	03:40	03:43	0:03	6	03:40	03:42	0:02
7	04:49	04:52	0:03	7	04:49	04:52	0:03	7	04:49	04:52	0:03	7	04:49	04:52	0:03
8	05:06	05:10	0:04	8	05:05	05:10	0:05	8	05:05	05:09	0:04	8	05:05	05:09	0:04
9	05:31	05:33	0:02	9	05:31	05:33	0:02	9	05:31	05:33	0:02	9	05:31	05:33	0:02
10	07:03	07:06	0:03	10	07:03	07:06	0:03	10	07:03	07:06	0:03	10	07:04	07:06	0:02
11	07:13	07:16	0:03	11	07:13	07:16	0:03	11	07:13	07:16	0:03	11	07:14	07:17	0:03
12	07:32	07:36	0:04	12	07:32	07:36	0:04	12	07:33	07:36	0:03	12	07:33	07:36	0:03
13	07:46	07:50	0:04	13	07:46	07:50	0:04	13	07:46	07:51	0:05	13	07:46	07:51	0:05
14	08:50	08:51	0:01	14	08:49	08:52	0:03	14	08:50	08:52	0:02	14	08:50	08:52	0:02
15	09:34	09:36	0:02	15	09:34	09:36	0:02	15	09:34	09:36	0:02	15	09:33	09:35	0:02
16	10:09	10:14	0:05	16	10:07	10:14	0:07	16	10:07	10:14	0:07	16	10:06	10:13	0:07
17	10:32	10:38	0:06	17	10:31	10:38	0:07	17	10:31	10:38	0:07	17	10:32	10:39	0:07
18	10:48	10:50	0:02	18	10:48	10:50	0:02	18	10:48	10:51	0:03	18	10:49	10:51	0:02
19	11:11	11:15	0:04	19	11:10	11:15	0:05	19	11:11	11:15	0:04	19	11:11	11:16	0:05
20	11:27	11:28	0:01	20	11:27	11:44	0:17	20	11:27	11:43	0:16	20	11:25	11:42	0:17
21	11:30	11:44	0:14												
22	11:45	11:45	0:00									21	11:42	11:43	0:01
23	12:13	12:17	0:04	21	12:13	12:17	0:04	21	12:13	12:17	0:04	22	12:13	12:17	0:04
24	12:36	12:39	0:03	22	12:35	12:39	0:04	22	12:35	12:38	0:03	23	12:34	12:38	0:04
25	12:40	12:41	0:01	23	12:39	12:41	0:02	23	12:39	12:40	0:01	24	12:38	12:40	0:02
26	13:20	13:21	0:01	24	13:20	13:21	0:01	24	13:20	13:21	0:01				
27	13:25	13:26	0:01	25	13:25	13:26	0:01	25	13:25	13:33	0:08	25	13:25	13:32	0:07
28	13:28	13:34	0:06	26	13:27	13:33	0:06								
29	13:45	13:46	0:01	27	13:45	13:46	0:01	26	13:45	13:46	0:01				
30	13:48	13:49	0:01	28	13:48	13:50	0:02	27	13:49	13:50	0:01	26	13:49	13:50	0:01
31	13:54	13:55	0:01	29	13:54	13:55	0:01	28	13:54	13:55	0:01				
32	13:56	13:57	0:01	30	13:56	13:57	0:01	29	13:56	13:57	0:01	27	13:56	13:58	0:02
33	14:53	14:54	0:01	31	14:53	14:54	0:01	30	14:53	14:54	0:01	28	14:52	14:54	0:02
34	15:23	15:23	0:00	32	15:22	15:23	0:01	31	15:22	15:23	0:01	29	15:22	15:23	0:01
35	15:44	15:47	0:03	33	15:44	15:47	0:03	32	15:44	15:48	0:04	30	15:45	15:48	0:03
36	16:19	16:21	0:02	34	16:19	16:27	0:08	33	16:19	16:21	0:02	31	16:19	16:21	0:02
37	16:22	16:27	0:05					34	16:21	16:27	0:06	32	16:22	16:28	0:06
38	16:52	16:53	0:01	35	16:52	16:53	0:01	35	16:52	16:53	0:01				
39	16:54	16:55	0:01	36	16:54	16:56	0:02	36	16:54	16:56	0:02	33	16:54	16:56	0:02
40	18:47	18:49	0:02	37	18:47	18:48	0:01	37	18:47	18:48	0:01	34	18:46	18:48	0:02
41	19:08	19:10	0:02	38	19:07	19:10	0:03	38	19:07	19:10	0:03	35	19:07	19:10	0:03
42	19:34	19:38	0:04	39	19:32	19:37	0:05	39	19:32	19:37	0:05	36	19:31	19:36	0:05
43	19:53	19:56	0:03	40	19:53	19:56	0:03	40	19:53	19:55	0:02	37	19:53	19:55	0:02
44	20:10	20:12	0:02	41	20:10	20:12	0:02	41	20:10	20:12	0:02	38	20:10	20:12	0:02
45	20:41	20:42	0:01	42	20:40	20:42	0:02	42	20:40	20:41	0:01	39	20:40	20:41	0:01
46	23:02	23:03	0:01	43	23:02	23:03	0:01	43	23:02	23:03	0:01	40	23:01	23:02	0:01
47	23:26	23:27	0:01	44	23:26	23:28	0:02	44	23:26	23:28	0:02	41	23:26	23:28	0:02
48	23:36	23:39	0:03	45	23:35	23:38	0:03	45	23:35	23:38	0:03	42	23:34	23:38	0:04
49	23:49	23:53	0:04	46	23:49	23:53	0:04	46	23:49	23:53	0:04	43	23:50	23:53	0:03
			2:14				**2:36**				**2:29**				**2:30**

Train Preemption

Friday, March 4, 2005

Main St. & Marigold St./Nash St.				Hill St./Western Ave. & Main St.				Main St. & Sunset Ave./Tarboro St.				Main St. & Thomas St. & Washington St.			
#	Started	Ended	Duration	#	Started	Ended	Duration	#	Started	Ended	Duration	#	Started	Ended	Duration
1	01:02	01:07	0:05	1	01:01	01:08	0:07	1	01:02	01:08	0:06	1	01:03	01:08	0:05
2	01:54	01:56	0:02	2	01:54	01:56	0:02	2	01:54	01:56	0:02	2	01:53	01:56	0:03
3	02:12	02:19	0:07	3	02:12	02:18	0:06	3	02:12	02:17	0:05	3	02:12	02:16	0:04
4	04:04	04:06	0:02	4	04:04	04:06	0:02	4	04:04	04:06	0:02	4	04:04	04:07	0:03
5	04:15	04:17	0:02	5	04:15	04:17	0:02	5	04:15	04:17	0:02	5	04:15	04:17	0:02
6	04:28	04:30	0:02	6	04:28	04:30	0:02	6	04:28	04:30	0:02	6	04:28	04:30	0:02
7	04:49	04:51	0:02	7	04:49	05:00	0:11	7	04:49	05:00	0:11	7	04:49	05:00	0:11
8	04:53	05:00	0:07												
9	05:08	05:09	0:01	8	05:08	05:09	0:01	8	05:08	05:09	0:01	8	05:09	05:09	0:00
10	05:12	05:13	0:01	9	05:12	05:14	0:02	9	05:12	05:14	0:02	9	05:13	05:14	0:01
11	07:20	07:24	0:04	10	07:19	07:24	0:05	10	07:20	07:25	0:05	10	07:21	07:25	0:04
12	07:36	07:39	0:03	11	07:36	07:39	0:03	11	07:36	07:39	0:03	11	07:36	07:42	0:06
13	07:41	07:43	0:02	12	07:40	07:43	0:03	12	07:40	07:43	0:03				
14	08:02	08:03	0:01	13	08:02	08:03	0:01	13	08:02	08:03	0:01	12	08:02	08:03	0:01
15	09:40	09:46	0:06	14	09:38	09:45	0:07	14	09:38	09:45	0:07	13	09:36	09:45	0:09
16	10:18	10:23	0:05	15	10:18	10:23	0:05	15	10:18	10:23	0:05	14	10:19	10:23	0:04
17	11:47	11:49	0:02	16	11:46	11:49	0:03	16	11:46	11:48	0:02	15	11:46	11:48	0:02
18	12:01	12:03	0:02	17	12:01	12:03	0:02	17	12:02	12:03	0:01				
19	12:05	12:06	0:01	18	12:05	12:06	0:01	18	12:05	12:06	0:01	16	12:05	12:06	0:01
20	12:10	12:11	0:01	19	12:10	12:11	0:01	19	12:10	12:11	0:01	17	12:10	12:11	0:01
21	13:10	13:11	0:01	20	13:10	13:11	0:01	20	13:10	13:11	0:01				
22	13:14	13:15	0:01	21	13:14	13:15	0:01	21	13:14	13:15	0:01	18	13:14	13:15	0:01
23	13:34	13:35	0:01	22	13:33	13:35	0:02	22	13:33	13:35	0:02	19	13:34	13:35	0:01
24	13:41	13:42	0:01	23	13:41	13:42	0:01	23	13:41	13:42	0:01				
25	13:44	13:45	0:01	24	13:44	13:45	0:01	24	13:44	13:45	0:01	20	13:44	13:46	0:02
26	14:11	14:12	0:01	25	14:11	14:12	0:01	25	14:10	14:12	0:02	21	14:10	14:11	0:01
27	14:49	14:50	0:01	26	14:49	14:50	0:01	26	14:49	14:50	0:01	22	14:49	14:50	0:01
28	15:04	15:10	0:06	27	15:04	15:10	0:06	27	15:04	15:09	0:05	23	15:03	15:08	0:05
29	15:31	15:34	0:03	28	15:31	15:34	0:03	28	15:31	15:34	0:03	24	15:31	15:34	0:03
30	15:52	15:52	0:00	29	15:51	15:52	0:01	29	15:51	15:52	0:01	25	15:51	15:52	0:01
31	16:56	16:58	0:02	30	16:55	16:58	0:03	30	16:55	16:57	0:02	26	16:55	16:57	0:02
32	17:35	17:44	0:09	31	17:34	17:43	0:09	31	17:34	17:42	0:08	27	17:34	17:41	0:07
33	18:20	18:23	0:03	32	18:20	18:23	0:03	32	18:20	18:22	0:02	28	18:19	18:22	0:03
				33	18:28	18:28	0:00								
				34	18:29	18:29	0:00								
34	18:49	18:50	0:01	35	18:48	18:49	0:01	33	18:48	18:49	0:01	29	18:48	18:49	0:01
				36	18:51	18:52	0:01								
35	19:11	19:13	0:02	37	19:11	19:13	0:02	34	19:11	19:12	0:01	30	19:10	19:12	0:02
36	19:18	19:25	0:07	38	19:17	19:26	0:09	35	19:18	19:25	0:07	31	19:18	19:26	0:08
				39	19:37	19:38	0:01								
37	20:04	20:05	0:01	40	20:03	20:05	0:02	36	20:03	20:05	0:02	32	20:03	20:05	0:02
				41	20:05	20:06	0:01								
38	20:34	20:39	0:05	42	20:32	20:39	0:07	37	20:32	20:39	0:07	33	20:31	20:38	0:07
39	21:25	21:34	0:09	43	21:25	21:35	0:10	38	21:25	21:34	0:09	34	21:26	21:35	0:09
				44	21:35	21:37	0:02								
				45	21:47	21:47	0:00								
				46	21:48	21:48	0:00								
40	22:49	22:52	0:03	47	22:49	22:52	0:03	39	22:50	22:52	0:02	35	22:50	22:52	0:02
41	23:00	23:01	0:01	48	23:00	23:01	0:01	40	23:00	23:01	0:01	36	22:59	23:01	0:02
42	23:44	23:46	0:02	49	23:44	23:46	0:02	41	23:44	23:46	0:02	37	23:44	23:46	0:02
			1:59				**2:21**				**2:04**				**2:01**

Train Preemption

Saturday, March 5, 2005

Main St. & Marigold St./Nash St.				Hill St./Western Ave. & Main St.				Main St. & Sunset Ave./Tarboro St.				Main St. & Thomas St. & Washington St.			
#	Started	Ended	Duration	#	Started	Ended	Duration	#	Started	Ended	Duration	#	Started	Ended	Duration
1	00:41	00:49	0:08	1	00:40	00:49	0:09	1	00:40	00:48	0:08	1	00:38	00:48	0:10
2	01:02	01:03	0:01	2	01:02	01:03	0:01	2	01:02	01:04	0:02	2	01:02	01:04	0:02
3	01:26	01:30	0:04	3	01:26	01:30	0:04	3	01:25	01:29	0:04	3	01:25	01:29	0:04
4	02:06	02:08	0:02	4	02:06	02:08	0:02	4	02:06	02:08	0:02	4	02:05	02:08	0:03
5	03:42	03:47	0:05	5	03:40	03:46	0:06	5	03:40	03:46	0:06	5	03:39	03:46	0:07
6	04:20	04:23	0:03	6	04:20	04:23	0:03	6	04:20	04:23	0:03	6	04:19	04:22	0:03
7	04:27	04:29	0:02	7	04:27	04:29	0:02	7	04:27	04:29	0:02	7	04:28	04:29	0:01
8	05:08	05:12	0:04	8	05:08	05:12	0:04	8	05:08	05:12	0:04	8	05:09	05:13	0:04
9	05:49	05:50	0:01	9	05:49	05:50	0:01	9	05:49	05:50	0:01				
10	05:51	05:52	0:01	10	05:51	05:52	0:01	10	05:51	05:53	0:02	9	05:51	05:53	0:02
11	06:04	06:10	0:06	11	06:03	06:10	0:07	11	06:03	06:11	0:08	10	06:05	06:19	0:14
12	07:06	07:09	0:03	12	07:06	07:09	0:03	12	07:06	07:09	0:03	11	07:06	07:08	0:02
13	09:47	09:52	0:05	13	09:46	09:52	0:06	13	09:46	09:52	0:06	12	09:46	09:51	0:05
14	10:06	10:07	0:01	14	10:05	10:08	0:03	14	10:06	10:08	0:02	13	10:06	10:08	0:02
15	10:41	10:43	0:02	15	10:41	10:43	0:02	15	10:41	10:43	0:02	14	10:42	10:44	0:02
16	11:39	11:44	0:05	16	11:37	11:43	0:06	16	11:37	11:43	0:06	15	11:36	11:42	0:06
17	11:56	12:00	0:04	17	11:56	12:00	0:04	17	11:56	12:01	0:05	16	11:57	12:01	0:04
18	12:09	12:25	0:16	18	12:07	12:24	0:17	18	12:06	12:23	0:17	17	12:05	12:21	0:16
												18	12:22	12:22	0:00
19	12:50	12:54	0:04	19	12:48	12:53	0:05	19	12:47	12:53	0:06	19	12:46	12:53	0:07
20	12:59	13:00	0:01	20	12:59	13:00	0:01	20	12:59	13:00	0:01				
21	13:03	13:04	0:01	21	13:03	13:04	0:01	21	13:03	13:05	0:02	20	13:03	13:05	0:02
22	13:26	13:27	0:01	22	13:26	13:27	0:01	22	13:27	13:28	0:01				
23	13:31	13:32	0:01	23	13:31	13:32	0:01	23	13:31	13:32	0:01	21	13:31	13:32	0:01
24	14:13	14:13	0:00	24	14:12	14:13	0:01	24	14:12	14:14	0:02	22	14:12	14:13	0:01
25	14:19	14:20	0:01	25	14:19	14:20	0:01	25	14:19	14:20	0:01				
26	14:22	14:24	0:02	26	14:23	14:24	0:01	26	14:23	14:24	0:01	23	14:23	14:24	0:01
27	15:13	15:14	0:01	27	15:13	15:14	0:01	27	15:13	15:14	0:01	24	15:13	15:14	0:01
28	16:13	16:18	0:05	28	16:12	16:18	0:06	28	16:12	16:19	0:07	25	16:13	16:19	0:06
29	17:13	17:17	0:04	29	17:12	17:17	0:05	29	17:12	17:16	0:04	26	17:12	17:16	0:04
30	18:06	18:13	0:07	30	18:05	18:13	0:08	30	18:06	18:13	0:07	27	18:07	18:14	0:07
31	18:36	18:37	0:01	31	18:35	18:37	0:02	31	18:35	18:37	0:02	28	18:35	18:37	0:02
32	18:46	18:47	0:01	32	18:46	18:47	0:01	32	18:46	18:47	0:01	29	18:46	18:47	0:01
33	18:55	18:57	0:02	33	18:55	18:58	0:03	33	18:55	18:58	0:03	30	18:56	18:58	0:02
34	19:27	19:29	0:02	34	19:26	19:29	0:03	34	19:26	19:28	0:02	31	19:26	19:28	0:02
35	19:41	19:44	0:03	35	19:41	19:44	0:03	35	19:41	19:44	0:03	32	19:40	19:44	0:04
36	19:56	19:58	0:02	36	19:56	19:58	0:02	36	19:56	19:57	0:01	33	19:55	19:57	0:02
37	20:06	20:08	0:02	37	20:06	20:08	0:02	37	20:06	20:08	0:02	34	20:06	20:08	0:02
38	21:22	21:26	0:04	38	21:21	21:25	0:04	38	21:21	21:25	0:04	35	21:21	21:24	0:03
39	22:07	22:08	0:01	39	22:07	22:09	0:02	39	22:07	22:09	0:02	36	22:07	22:09	0:02
40	22:40	22:41	0:01	40	22:40	22:41	0:01	40	22:39	22:40	0:01	37	22:39	22:40	0:01
41	23:02	23:07	0:05	41	23:01	23:07	0:06	41	23:01	23:07	0:06	38	23:02	23:07	0:05
42	23:49	23:51	0:02	42	23:49	23:51	0:02	42	23:49	23:51	0:02	39	23:49	23:51	0:02
			2:07				**2:24**				**2:26**				**2:25**

Train Preemption

Sunday, March 6, 2005

Main St. & Marigold St./Nash St.				Hill St./Western Ave. & Main St.				Main St. & Sunset Ave./Tarboro St.				Main St. & Thomas St. & Washington St.			
#	Started	Ended	Duration	#	Started	Ended	Duration	#	Started	Ended	Duration	#	Started	Ended	Duration
1	01:35	01:38	0:03	1	01:34	01:38	0:04	1	01:34	01:38	0:04	1	01:33	01:38	0:05
2	01:56	01:57	0:01	2	01:56	01:57	0:01	2	01:56	01:57	0:01	2	01:56	01:57	0:01
3	02:04	02:07	0:03	3	02:04	02:07	0:03	3	02:04	02:07	0:03	3	02:05	02:07	0:02
4	02:48	02:51	0:03	4	02:48	02:51	0:03	4	02:48	02:51	0:03	4	02:49	02:52	0:03
5	02:55	03:03	0:08	5	02:54	03:02	0:08	5	02:54	03:02	0:08	5	02:53	03:01	0:08
6	03:20	03:23	0:03	6	03:20	03:23	0:03	6	03:20	03:23	0:03	6	03:20	03:23	0:03
7	03:39	03:41	0:02	7	03:39	03:41	0:02	7	03:39	03:41	0:02	7	03:40	03:42	0:02
8	05:09	05:11	0:02	8	05:09	05:11	0:02	8	05:09	05:11	0:02	8	05:09	05:11	0:02
9	05:35	05:39	0:04	9	05:35	05:39	0:04	9	05:35	05:39	0:04	9	05:36	05:39	0:03
10	05:44	05:45	0:01	10	05:44	05:45	0:01	10	05:44	05:45	0:01	10	05:45	05:45	0:00
11	05:47	05:49	0:02	11	05:48	05:49	0:01	11	05:48	05:49	0:01	11	05:48	05:49	0:01
12	07:23	07:30	0:07	12	07:22	07:30	0:08	12	07:22	07:30	0:08	12	07:21	07:29	0:08
13	07:36	07:38	0:02	13	07:36	07:38	0:02	13	07:36	07:38	0:02	13	07:36	07:38	0:02
14	08:05	08:09	0:04	14	08:05	08:10	0:05	14	08:05	08:10	0:05	14	08:06	08:10	0:04
15	08:27	08:32	0:05	15	08:26	08:31	0:05	15	08:26	08:31	0:05	15	08:26	08:30	0:04
16	08:47	08:49	0:02	16	08:46	08:49	0:03	16	08:47	08:49	0:02	16	08:47	08:49	0:02
17	09:06	09:09	0:03	17	09:06	09:09	0:03	17	09:06	09:09	0:03	17	09:05	09:08	0:03
18	09:50	09:52	0:02	18	09:48	09:52	0:04	18	09:48	09:51	0:03	18	09:47	09:51	0:04
19	10:11	10:13	0:02	19	10:11	10:13	0:02	19	10:11	10:13	0:02	19	10:11	10:14	0:03
20	10:28	10:29	0:01	20	10:28	10:29	0:01	20	10:28	10:29	0:01	20	10:29	10:29	0:00
21	10:32	10:33	0:01	21	10:33	10:34	0:01	21	10:33	10:34	0:01	21	10:33	10:34	0:01
22	10:53	10:59	0:06	22	10:52	10:59	0:07	22	10:53	10:59	0:06	22	10:54	10:59	0:05
23	13:20	13:21	0:01	23	13:20	13:21	0:01	23	13:21	13:21	0:00				
24	13:24	13:25	0:01	24	13:24	13:25	0:01	24	13:24	13:25	0:01	23	13:24	13:26	0:02
25	13:35	13:36	0:01	25	13:35	13:36	0:01	25	13:35	13:36	0:01				
26	13:37	13:38	0:01	26	13:37	13:38	0:01	26	13:38	13:39	0:01	24	13:38	13:39	0:01
27	14:17	14:27	0:10	27	14:17	14:27	0:10	27	14:18	14:27	0:09	25	14:18	14:28	0:10
				28	14:37	14:38	0:01								
				29	14:59	15:00	0:01					26	14:59	15:00	0:01
28	15:23	15:24	0:01	30	15:23	15:24	0:01	28	15:22	15:24	0:02	27	15:22	15:23	0:01
29	15:38	15:43	0:05	31	15:36	15:43	0:07	29	15:36	15:43	0:07	28	15:35	15:42	0:07
30	15:53	15:57	0:04	32	15:53	15:56	0:03	30	15:52	15:56	0:04	29	15:52	15:55	0:03
31	17:12	17:19	0:07	33	17:12	17:20	0:08	31	17:12	17:20	0:08	30	17:13	17:20	0:07
32	17:33	17:35	0:02	34	17:32	17:35	0:03	32	17:32	17:35	0:03	31	17:32	17:35	0:03
33	17:47	17:51	0:04	35	17:46	17:54	0:08	33	17:46	17:54	0:08	32	17:47	17:54	0:07
34	17:51	17:54	0:03												
35	18:26	18:28	0:02	36	18:26	18:27	0:01	34	18:26	18:27	0:01	33	18:26	18:27	0:01
36	20:04	20:10	0:06	37	20:03	20:11	0:08	35	20:04	20:11	0:07	34	20:05	20:11	0:06
37	20:55	20:57	0:02	38	20:55	20:57	0:02	36	20:54	20:57	0:03	35	20:54	20:56	0:02
38	21:07	21:10	0:03	39	21:07	21:11	0:04	37	21:07	21:11	0:04	36	21:08	21:11	0:03
39	22:00	22:04	0:04	40	22:00	22:04	0:04	38	22:00	22:04	0:04	37	21:59	22:04	0:05
40	22:41	22:42	0:01	41	22:40	22:42	0:02	39	22:40	22:41	0:01	38	22:40	22:41	0:01
			2:05				**2:20**				**2:14**				**2:06**

Train Preemption

Monday, March 7, 2005

Main St. & Marigold St./Nash St.				Hill St./Western Ave. & Main St.				Main St. & Sunset Ave./Tarboro St.				Main St. & Thomas St. & Washington St.			
#	Started	Ended	Duration	#	Started	Ended	Duration	#	Started	Ended	Duration	#	Started	Ended	Duration
1	00:24	00:26	0:02	1	00:24	00:26	0:02	1	00:24	00:26	0:02	1	00:23	00:25	0:02
2	01:21	01:28	0:07	2	01:19	01:27	0:08	2	01:19	01:27	0:08	2	01:18	01:26	0:08
3	02:32	02:39	0:07	3	02:30	02:38	0:08	3	02:29	02:36	0:07	3	02:28	02:35	0:07
4	03:02	03:04	0:02	4	03:01	03:04	0:03	4	03:01	03:04	0:03	4	03:02	03:04	0:02
5	03:10	03:16	0:06	5	03:09	03:14	0:05	5	03:08	03:14	0:06	5	03:08	03:13	0:05
6	03:57	04:00	0:03	6	03:57	04:00	0:03	6	03:57	04:01	0:04	6	03:57	04:01	0:04
7	04:12	04:14	0:02	7	04:12	04:14	0:02	7	04:12	04:14	0:02	7	04:12	04:14	0:02
8	04:24	04:35	0:11	8	04:23	04:34	0:11	8	04:23	04:34	0:11	8	04:23	04:34	0:11
9	05:45	05:47	0:02	9	05:45	05:47	0:02	9	05:46	05:47	0:01	9	05:46	05:47	0:01
10	05:50	05:52	0:02	10	05:51	05:52	0:01	10	05:51	05:52	0:01	10	05:51	05:52	0:01
11	06:58	07:00	0:02	11	06:58	07:00	0:02	11	06:58	07:00	0:02	11	06:58	07:01	0:03
12	07:23	07:26	0:03	12	07:23	07:26	0:03	12	07:23	07:26	0:03	12	07:24	07:27	0:03
13	09:49	09:51	0:02	13	09:49	09:51	0:02	13	09:49	09:51	0:02	13	09:50	09:51	0:01
14	10:52	10:52	0:00					14	10:47	10:49	0:02	14	10:47	10:49	0:02
15	12:06	12:07	0:01	14	12:06	12:07	0:01	15	12:06	12:07	0:01	15	12:06	12:08	0:02
16	12:42	12:49	0:07	15	12:41	12:48	0:07	16	12:41	12:48	0:07	16	12:40	12:47	0:07
17	13:11	13:12	0:01	16	13:11	13:12	0:01	17	13:11	13:12	0:01				
18	13:15	13:16	0:01	17	13:15	13:16	0:01	18	13:15	13:16	0:01	17	13:15	13:16	0:01
19	13:50	13:51	0:01	18	13:50	13:51	0:01	19	13:50	13:51	0:01				
20	13:53	13:54	0:01	19	13:53	13:55	0:02	20	13:54	13:55	0:01	18	13:54	13:55	0:01
				20	13:57	13:57	0:00								
21	14:23	14:23	0:00	21	14:22	14:23	0:01	21	14:22	14:23	0:01	19	14:22	14:23	0:01
22	14:42	14:43	0:01	22	14:42	14:43	0:01	22	14:42	14:43	0:01				
23	14:46	14:47	0:01	23	14:46	14:48	0:02	23	14:46	14:48	0:02	20	14:46	14:48	0:02
24	15:04	15:09	0:05	24	15:02	15:09	0:07	24	15:02	15:08	0:06	21	15:01	15:08	0:07
25	15:10	15:11	0:01	25	15:10	15:11	0:01	25	15:09	15:11	0:02	22	15:09	15:10	0:01
26	15:23	15:25	0:02	26	15:23	15:26	0:03	26	15:23	15:26	0:03	23	15:24	15:26	0:02
27	16:24	16:25	0:01	27	16:23	16:25	0:02	27	16:23	16:24	0:01	24	16:23	16:24	0:01
28	16:41	16:44	0:03	28	16:40	16:44	0:04	28	16:41	16:45	0:04	25	16:42	16:45	0:03
29	17:11	17:17	0:06	29	17:11	17:17	0:06	29	17:11	17:17	0:06	26	17:10	17:13	0:03
												27	17:14	17:17	0:03
30	17:41	17:42	0:01	30	17:40	17:42	0:02	30	17:40	17:42	0:02	28	17:40	17:42	0:02
31	18:39	18:47	0:08	31	18:37	18:46	0:09	31	18:37	18:45	0:08	29	18:36	18:44	0:08
32	19:14	19:15	0:01	32	19:14	19:15	0:01	32	19:14	19:15	0:01	30	19:13	19:15	0:02
33	19:55	19:57	0:02	33	19:55	19:57	0:02	33	19:55	19:56	0:01	31	19:54	19:56	0:02
34	20:05	20:08	0:03	34	20:03	20:08	0:05	34	20:03	20:08	0:05	32	20:03	20:07	0:04
35	21:37	21:38	0:01	35	21:37	21:38	0:01	35	21:37	21:39	0:02	33	21:37	21:39	0:02
36	23:16	23:19	0:03	36	23:15	23:19	0:04	36	23:16	23:18	0:02	34	23:16	23:18	0:02
			1:42				**1:56**				**1:53**				**1:48**

APPENDIX B:

EXISTING (2003) TURNING MOVEMENT COUNTS

AND

AVERAGE ANNUAL DAILY TRAFFIC

Rocky Mount Downtown Circulation Study
Historical Average Daily Traffic Volumes

Descript_1	COUNT_YR1	AADT_YR1	COUNT_YR2	AADT_YR2	COUNT_YR3	AADT_YR3	COUNT_YR4	AADT_YR4	NAME_OF_RO	2000_VOLUM	2001_VOLUM	2025_VOLUM
Between Falls Rd & Aven St. on Grand Ave.	1999	9500	1997	8100	1996	9300	1995	8100		0	9400	0
Between Albemarle Ave. & Main ST. on Grand Ave.	1999	11000	1997	11000	1996	12000	1995	12000		0	11000	0
Between E Grand Ave. & E Highland Ave. on Atlanti	1999	5300	1997	5000	1996	6700	1995	6700		0	5200	0
Church St. above Goldleaf St.	1999	5100	1997	5000	1996	4900	1995	5400		0	4200	0
Between Thomas St. & Gay St. on Franklin St.	1999	4400	1997	3500	1996	4000	1995	4300		0	0	0
Between Pearl St. & Franklin St. on Thomas St.	1999	5500	1997	7500	1996	8000	1995	7700		0	4900	0
Between Church St. & Main St. on Thomas St.	1999	4000	1997	4400	1996	4600	1995	5100		0	3500	0
Between Western Ave. & Sunset Ave. on Franklin St.	1999	4700	1997	4100	1996	4500	1995	4800		0	4500	0
Between Main St. & Church St. on Tarboro St.	1999	4500	1997	4800	1996	6000	1995	6000		0	4400	0
Between Western Ave. & Sunset Ave. on Church St.	1999	5800	1997	5600	1996	7500	1995	7500		0	5900	0
Between Arlington St. & Washington St. on Hill St.	1999	2600	1997	4200	1996	4100	1995	5200		0	2400	0
Between Eastern Ave. & Tarboro St. on Atlantic Ave	1999	7600	1997	7200	1996	6800	1995	8000		0	6400	0
Arlington St. @ Raleigh St.	1999	4400	1997	4500	1996	4600	1995	4600		0	4900	0
Below Rocky St. on Franklin St.	1999	3300	1997	3100	1996	4300	1995	4300		0	2700	0
Nash County Railroad	1997	3200	1996	4000	1995	4100	1994	4000	Church St.	3400	3500	5600
Between Arlington St. & Washington St. on George S	1999	12000	1997	12000	1996	12000	1995	12000		0	1000	0
Below George St. on Franklin St.	1999	3600	1997	3900	1996	5000	1995	5200		0	3100	0
Between Grace St. & Pearl St. on George St.	1999	10000	1997	11000	0	0	0	0		0	1000	0
Between Albemarle Ave. & Arlington St. on Tarboro	1999	3800	1997	3400	0	0	0	0		0	4300	0
Below Nash St. on Franklin St.	1999	4200	1997	3800	0	0	0	0		0	3800	0
Gay St. @ Grace St.	1999	11000	1997	10000	0	0	0	0		0	1100	0
Between Main St. & Church St. on E Grand Ave.	1996	12000	1994	11000	1993	12000	1983	12000		0	1100	0
Nash County Railroad	0	0	0	0	0	0	0	0	Franklin St.	3300	0	5500
Nash County Railroad	0	0	0	0	0	0	0	0	Pearl St.	500	0	800
Nash County Railroad	0	0	0	0	0	0	0	0	Grace St.	6900	0	11300
CSX "A" LINE	0	0	0	0	0	0	0	0	E. Grand Ave.	11800	0	19400
CSX "A" LINE	0	0	0	0	0	0	0	0	Goldleaf St.	2500	0	3700
CSX "A" LINE	0	0	0	0	0	0	0	0	Thomas St.	4700	0	7800
CSX "A" LINE	0	0	0	0	0	0	0	0	Sunset Ave.	5100	0	8400
CSX "A" LINE	0	0	0	0	0	0	0	0	Western Ave.	4400	0	6400
CSX "A" LINE	0	0	0	0	0	0	0	0	Nash St.	2300	0	3400

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Main St. & Marigold St.-Nash S
Site Code : 01421108
Start Date : 7/22/2003
Page No : 1

Groups Printed- Unshifted

	SW Main St. Southbound					Westbound					SE Main St. Northbound					Marigold St. Eastbound							
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
07:00 AM	2	4	0	1	6	0	0	0	1	0	0	1	1	2	2	0	5	1	0	6	4	14	18
07:15 AM	0	2	0	0	2	0	0	0	2	0	0	0	2	1	2	3	12	1	0	16	3	20	23
07:30 AM	1	8	0	0	9	0	0	0	0	0	0	0	1	4	1	1	20	0	0	21	4	31	35
07:45 AM	3	10	0	1	13	0	0	0	0	0	0	1	2	0	3	2	28	3	0	33	1	49	50
Total	6	24	0	2	30	0	0	0	3	0	0	2	6	7	8	6	65	5	0	76	12	114	126
08:00 AM	5	10	0	0	15	0	0	0	0	0	0	3	1	0	4	2	20	7	0	29	0	48	48
08:15 AM	2	15	0	0	17	0	0	0	0	0	0	3	0	1	3	2	15	0	0	17	1	37	38
08:30 AM	2	8	0	0	10	0	0	0	0	0	0	2	0	0	2	2	16	1	0	19	0	31	31
08:45 AM	2	14	0	0	16	0	0	0	0	0	0	3	4	0	7	2	22	1	0	25	0	48	48
Total	11	47	0	0	58	0	0	0	0	0	0	11	5	1	16	8	73	9	0	90	1	164	165
11:00 AM	5	12	0	1	17	0	0	0	0	0	0	2	0	5	2	1	20	3	0	24	6	43	49
11:15 AM	10	19	0	2	29	0	0	0	0	0	0	2	3	2	5	4	13	2	0	19	4	53	57
11:30 AM	16	21	0	0	37	0	0	0	0	0	0	1	2	1	3	0	16	4	0	20	1	60	61
11:45 AM	8	28	0	0	36	0	0	0	0	0	0	3	3	2	6	3	10	5	2	18	4	60	64
Total	39	80	0	3	119	0	0	0	0	0	0	8	8	10	16	8	59	14	2	81	15	216	231
12:00 PM	12	17	0	0	29	0	0	0	0	0	0	3	1	0	4	3	22	0	0	25	0	58	58
12:15 PM	9	15	0	0	24	0	0	0	0	0	0	2	3	1	5	6	26	0	0	32	1	61	62
12:30 PM	9	15	0	0	24	0	0	0	0	0	0	2	2	3	4	1	22	1	0	24	3	52	55
12:45 PM	12	12	0	1	24	0	0	0	1	0	0	2	1	0	3	8	19	3	0	30	2	57	59
Total	42	59	0	1	101	0	0	0	1	0	0	9	7	4	16	18	89	4	0	111	6	228	234
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	3	3
Total	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	3	3
04:00 PM	5	18	0	0	23	0	0	0	0	0	0	0	2	0	2	6	29	1	0	36	0	61	61
04:15 PM	14	14	0	0	28	0	0	0	0	0	0	0	2	2	2	4	24	0	0	28	2	58	60
04:30 PM	11	10	0	0	21	0	0	0	0	0	0	0	1	0	1	2	29	5	1	36	1	58	59
04:45 PM	8	10	0	0	18	0	0	0	0	0	0	2	3	0	5	1	32	3	0	36	0	59	59
Total	38	52	0	0	90	0	0	0	0	0	0	2	8	2	10	13	114	9	1	136	3	236	239
05:00 PM	10	17	0	0	27	0	0	0	0	0	0	1	0	0	1	0	32	0	0	32	0	60	60
05:15 PM	7	6	0	0	13	0	0	0	0	0	0	2	1	0	3	0	25	0	0	25	0	41	41
05:30 PM	1	7	0	1	8	0	0	0	0	0	0	1	0	0	1	1	12	0	0	13	1	22	23
05:45 PM	4	8	0	0	12	0	0	0	0	0	0	1	3	0	4	1	28	1	0	30	0	46	46
Total	22	38	0	1	60	0	0	0	0	0	0	5	4	0	9	2	97	1	0	100	1	169	170
Grand Total	158	300	0	7	458	0	0	0	4	0	0	39	39	24	78	55	497	42	3	594	38	1130	1168
Apprch %	34.5	65.5	0.0			0.0	0.0	0.0			0.0	50.0	50.0			9.3	83.7	7.1					
Total %	14.0	26.5	0.0		40.5	0.0	0.0	0.0		0.0	0.0	3.5	3.5		6.9	4.9	44.0	3.7		52.6	3.3	96.7	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Main St. & Marigold St.-Nash S
Site Code : 01421108
Start Date : 7/22/2003

	SW Main St. Southbound				Westbound				SE Main St. Northbound				Marigold St. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:30 AM																
Volume	11	43	0	54	0	0	0	0	0	7	4	11	7	83	10	100	165
Percent	20.4	79.6	0.0		0.0	0.0	0.0		0.0	63.6	36.4		7.0	83.0	10.0		
07:45 Volume	3	10	0	13	0	0	0	0	0	1	2	3	2	28	3	33	49
Peak Factor																	0.842
High Int.	08:15 AM				6:45:00 AM				08:00 AM				07:45 AM				
Volume	2	15	0	17	0	0	0	0	0	3	1	4	2	28	3	33	
Peak Factor				0.794								0.688				0.758	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	08:00 AM				07:00 AM				08:00 AM				07:30 AM				
Volume	11	47	0	58	0	0	0	0	0	11	5	16	7	83	10	100	
Percent	19.0	81.0	0.0		-	-	-		0.0	68.8	31.3		7.0	83.0	10.0		
High Int.	08:15 AM				-				08:45 AM				07:45 AM				
Volume	2	15	0	17	-	-	-	-	0	3	4	7	2	28	3	33	
Peak Factor				0.853				-				0.571				0.758	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Intersection	11:30 AM																
Volume	45	81	0	126	0	0	0	0	0	9	9	18	12	74	9	95	239
Percent	35.7	64.3	0.0		0.0	0.0	0.0		0.0	50.0	50.0		12.6	77.9	9.5		
12:15 Volume	9	15	0	24	0	0	0	0	0	2	3	5	6	26	0	32	61
Peak Factor																	0.980
High Int.	11:30 AM								11:45 AM				12:15 PM				
Volume	16	21	0	37	0	0	0	0	0	3	3	6	6	26	0	32	
Peak Factor				0.851								0.750				0.742	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
By Approach	11:15 AM				11:00 AM				11:45 AM				12:00 PM				
Volume	46	85	0	131	0	0	0	0	0	10	9	19	18	89	4	111	
Percent	35.1	64.9	0.0		-	-	-		0.0	52.6	47.4		16.2	80.2	3.6		
High Int.	11:30 AM				-				11:45 AM				12:15 PM				
Volume	16	21	0	37	-	-	-	-	0	3	3	6	6	26	0	32	
Peak Factor				0.885				-				0.792				0.867	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:00 PM																
Volume	38	52	0	90	0	0	0	0	0	2	8	10	13	114	9	136	236
Percent	42.2	57.8	0.0		0.0	0.0	0.0		0.0	20.0	80.0		9.6	83.8	6.6		
04:00 Volume	5	18	0	23	0	0	0	0	0	0	2	2	6	29	1	36	61
Peak Factor																	0.967
High Int.	04:15 PM								04:45 PM				04:00 PM				
Volume	14	14	0	28	0	0	0	0	0	2	3	5	6	29	1	36	
Peak Factor				0.804								0.500				0.944	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:15 PM				04:00 PM				04:00 PM				04:00 PM				
Volume	43	51	0	94	0	0	0	0	0	2	8	10	13	114	9	136	
Percent	45.7	54.3	0.0		-	-	-		0.0	20.0	80.0		9.6	83.8	6.6		
High Int.	04:15 PM				-				04:45 PM				04:00 PM				
Volume	14	14	0	28	-	-	-	-	0	2	3	5	6	29	1	36	
Peak Factor				0.839				-				0.500				0.944	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Church St. & Falls Rd
Site Code : 01420110
Start Date : 5/21/2003
Page No : 1

Groups Printed- Unshifted

	Southbound				Falls Rd. Westbound				Church St. Northbound				Falls Rd. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
07:00 AM	0	0	0	0	0	8	2	10	13	33	1	47	1	7	0	8	65
07:15 AM	0	0	0	0	0	9	1	10	10	34	1	45	0	8	0	8	63
07:30 AM	0	0	0	0	0	15	5	20	15	40	0	55	0	12	0	12	87
07:45 AM	0	0	0	0	0	15	7	22	22	37	3	62	0	10	0	10	94
Total	0	0	0	0	0	47	15	62	60	144	5	209	1	37	0	38	309
08:00 AM	0	0	0	0	0	7	7	14	16	53	0	69	0	11	0	11	94
08:15 AM	0	0	0	0	0	9	4	13	20	37	3	60	0	12	0	12	85
08:30 AM	0	0	0	0	0	7	5	12	32	31	1	64	1	11	0	12	88
08:45 AM	0	0	0	0	0	4	2	6	21	37	0	58	0	0	0	0	64
Total	0	0	0	0	0	27	18	45	89	158	4	251	1	34	0	35	331
11:00 AM	0	0	0	0	0	7	0	7	23	39	0	62	0	5	0	5	74
11:15 AM	0	0	0	0	0	17	2	19	24	47	0	71	1	5	0	6	96
11:30 AM	0	0	0	0	0	7	2	9	42	55	0	97	2	12	0	14	120
11:45 AM	0	0	0	0	0	19	1	20	40	39	0	79	2	11	0	13	112
Total	0	0	0	0	0	50	5	55	129	180	0	309	5	33	0	38	402
12:00 PM	0	0	0	0	0	20	2	22	50	45	0	95	1	3	0	4	121
12:15 PM	0	0	0	0	0	8	3	11	50	40	0	90	0	4	0	4	105
12:30 PM	0	0	0	0	0	7	4	11	23	41	2	66	3	11	0	14	91
12:45 PM	0	0	0	0	0	12	2	14	48	45	0	93	3	16	0	19	126
Total	0	0	0	0	0	47	11	58	171	171	2	344	7	34	0	41	443
04:00 PM	0	0	0	0	0	19	5	24	24	55	5	84	0	10	0	10	118
04:15 PM	0	0	0	0	0	20	5	25	42	59	0	101	1	19	0	20	146
04:30 PM	0	0	0	0	0	15	4	19	44	41	2	87	3	18	0	21	127
04:45 PM	0	0	0	0	0	18	1	19	41	58	0	99	0	11	0	11	129
Total	0	0	0	0	0	72	15	87	151	213	7	371	4	58	0	62	520
05:00 PM	0	0	0	0	0	16	6	22	65	98	3	166	1	4	0	5	193
05:15 PM	0	0	0	0	0	23	6	29	46	56	0	102	1	19	0	20	151
05:30 PM	0	0	0	0	0	12	0	12	42	48	2	92	1	12	0	13	117
05:45 PM	0	0	0	0	0	7	0	7	33	39	0	72	0	13	0	13	92
Total	0	0	0	0	0	58	12	70	186	241	5	432	3	48	0	51	553
Grand Total	0	0	0	0	0	301	76	377	786	1107	23	1916	21	244	0	265	2558
Apprch %	0.0	0.0	0.0		0.0	79.8	20.2		41.0	57.8	1.2		7.9	92.1	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	11.8	3.0	14.7	30.7	43.3	0.9	74.9	0.8	9.5	0.0	10.4	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Church St. & Falls R
Site Code : 01420110
Start Date : 5/21/2003
Page No : 2

	Southbound				Falls Rd. Westbound				Church St. Northbound				Falls Rd. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:45 AM																
Volume	0	0	0	0	0	38	23	61	90	158	7	255	1	44	0	45	361
Percent	0.0	0.0	0.0		0.0	62.3	37.7		35.3	62.0	2.7		2.2	97.8	0.0		
08:00 Volume	0	0	0	0	0	7	7	14	16	53	0	69	0	11	0	11	94
Peak Factor																	0.960
High Int.	6:45:00 AM				07:45 AM				08:00 AM				08:15 AM				
Volume	0	0	0	0	0	15	7	22	16	53	0	69	0	12	0	12	
Peak Factor								0.693				0.924				0.938	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	07:00 AM				07:30 AM				07:45 AM				07:30 AM				
Volume	0	0	0	0	0	46	23	69	90	158	7	255	0	45	0	45	
Percent	-	-	-		0.0	66.7	33.3		35.3	62.0	2.7		0.0	100.0	0.0		
High Int.	-				07:45 AM				08:00 AM				07:30 AM				
Volume	-	-	-	-	0	15	7	22	16	53	0	69	0	12	0	12	
Peak Factor				-				0.784				0.924				0.938	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Intersection	11:30 AM																
Volume	0	0	0	0	0	54	8	62	182	179	0	361	5	30	0	35	458
Percent	0.0	0.0	0.0		0.0	87.1	12.9		50.4	49.6	0.0		14.3	85.7	0.0		
12:00 Volume	0	0	0	0	0	20	2	22	50	45	0	95	1	3	0	4	121
Peak Factor																	0.946
High Int.					12:00 PM				11:30 AM				11:30 AM				
Volume	0	0	0	0	0	20	2	22	42	55	0	97	2	12	0	14	
Peak Factor								0.705				0.930				0.625	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
By Approach	11:00 AM				11:15 AM				11:30 AM				12:00 PM				
Volume	0	0	0	0	0	63	7	70	182	179	0	361	7	34	0	41	
Percent	-	-	-		0.0	90.0	10.0		50.4	49.6	0.0		17.1	82.9	0.0		
High Int.	-				12:00 PM				11:30 AM				12:45 PM				
Volume	-	-	-	-	0	20	2	22	42	55	0	97	3	16	0	19	
Peak Factor				-				0.795				0.930				0.539	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:30 PM																
Volume	0	0	0	0	0	72	17	89	196	253	5	454	5	52	0	57	600
Percent	0.0	0.0	0.0		0.0	80.9	19.1		43.2	55.7	1.1		8.8	91.2	0.0		
05:00 Volume	0	0	0	0	0	16	6	22	65	98	3	166	1	4	0	5	193
Peak Factor																	0.777
High Int.					05:15 PM				05:00 PM				04:30 PM				
Volume	0	0	0	0	0	23	6	29	65	98	3	166	3	18	0	21	
Peak Factor								0.767				0.684				0.679	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:00 PM				04:30 PM				04:45 PM				04:00 PM				
Volume	0	0	0	0	0	72	17	89	194	260	5	459	4	58	0	62	
Percent	-	-	-		0.0	80.9	19.1		42.3	56.6	1.1		6.5	93.5	0.0		
High Int.	-				05:15 PM				05:00 PM				04:30 PM				
Volume	-	-	-	-	0	23	6	29	65	98	3	166	3	18	0	21	
Peak Factor				-				0.767				0.691				0.738	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Cokey Rd. & George St. & Tarboro St
Site Code : 01421145
Start Date : 7/2/2003
Page No : 1

Groups Printed- 1 - Unshifted

	George St. Southbound				Tarboro St. Westbound				George St. Northbound				Tarboro St. Eastbound					
Start Time	Near Left	Far Left	Thru	App. Total	Left	Thru	Right	App. Total	Thru	Far Right	Near Right	App. Total	Left	Thru -Tarboro	Thru -Cokey	Right	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	2	3	25	30	3	0	0	3	18	5	2	25	7	9	14	0	30	88
07:15 AM	0	8	24	32	8	0	4	12	54	3	1	58	7	7	21	2	37	139
07:30 AM	0	10	44	54	11	0	7	18	45	8	1	54	3	0	12	2	17	143
07:45 AM	0	4	28	32	7	0	4	11	53	4	1	58	8	5	32	2	47	148
Total	2	25	121	148	29	0	15	44	170	20	5	195	25	21	79	6	131	518
08:00 AM	2	5	31	38	21	0	5	26	53	7	4	64	4	6	14	6	30	158
08:15 AM	3	11	38	52	2	0	0	2	11	1	1	13	6	3	12	1	22	89
08:30 AM	1	4	40	45	23	0	16	39	74	17	3	94	13	10	19	2	44	222
08:45 AM	1	9	42	52	18	0	6	24	69	11	2	82	9	8	12	8	37	195
Total	7	29	151	187	64	0	27	91	207	36	10	253	32	27	57	17	133	664
11:00 AM	10	7	49	66	8	0	11	19	46	9	0	55	17	29	26	6	78	218
11:15 AM	3	8	37	48	13	0	10	23	58	12	1	71	19	10	13	5	47	189
11:30 AM	3	7	31	41	14	0	4	18	37	8	1	46	9	9	10	4	32	137
11:45 AM	0	8	46	54	9	0	11	20	70	11	1	82	23	17	15	3	58	214
Total	16	30	163	209	44	0	36	80	211	40	3	254	68	65	64	18	215	758
12:00 PM	0	11	40	51	15	0	16	31	54	9	4	67	18	11	17	7	53	202
12:15 PM	0	5	38	43	10	0	8	18	73	9	4	86	30	13	38	4	85	232
12:30 PM	0	5	39	44	11	0	10	21	51	10	1	62	18	14	13	6	51	178
12:45 PM	2	6	29	37	14	0	13	27	59	16	4	79	9	13	25	2	49	192
Total	2	27	146	175	50	0	47	97	237	44	13	294	75	51	93	19	238	804
04:00 PM	0	9	27	36	7	0	9	16	143	14	4	161	34	23	30	7	94	307
04:15 PM	2	12	59	73	16	0	15	31	169	22	5	196	19	20	23	2	64	364
04:30 PM	0	9	84	93	21	0	7	28	209	14	0	223	24	18	39	12	93	437
04:45 PM	0	11	40	51	34	0	33	67	175	9	1	185	18	22	22	3	65	368
Total	2	41	210	253	78	0	64	142	696	59	10	765	95	83	114	24	316	1476
05:00 PM	0	5	44	49	13	0	11	24	94	8	0	102	45	32	37	8	122	297
05:15 PM	1	9	44	54	34	0	25	59	103	11	5	119	47	17	49	9	122	354
05:30 PM	1	8	40	49	18	0	10	28	77	16	2	95	19	24	21	4	68	240
05:45 PM	6	28	82	116	39	0	5	44	86	13	2	101	37	27	40	7	111	372
Total	8	50	210	268	104	0	51	155	360	48	9	417	148	100	147	28	423	1263
Grand Total	37	202	1001	1240	369	0	240	609	1881	247	50	2178	443	347	554	112	1456	5483
Apprch %	3.0	16.3	80.7		60.6	0.0	39.4		86.4	11.3	2.3		30.4	23.8	38.0	7.7		
Total %	0.7	3.7	18.3	22.6	6.7	0.0	4.4	11.1	34.3	4.5	0.9	39.7	8.1	6.3	10.1	2.0	26.6	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Cokey Rd. & George St. & Tarboro St
Site Code : 01421145
Start Date : 7/2/2003

	George St. Southbound				Tarboro St. Westbound				George St. Northbound				Tarboro St. Eastbound					
Start Time	Near Left	Far Left	Thru	App. Total	Left	Thru	Right	App. Total	Thru	Far Right	Near Right	App. Total	Left	Thru -Tarboro	Thru -Cokey	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 09:45 AM - Peak 1 of 1																		
Intersection	08:00 AM																	
Volume	7	29	151	187	64	0	27	91	207	36	10	253	32	27	57	17	133	664
Percent	3.7	15.5	80.7		70.3	0.0	29.7		81.8	14.2	4.0		24.1	20.3	42.9	12.8		
08:30 Volume	1	4	40	45	23	0	16	39	74	17	3	94	13	10	19	2	44	222
Peak Factor																		0.748
High Int.	08:15 AM				08:30 AM				08:30 AM				08:30 AM					
Volume	3	11	38	52	23	0	16	39	74	17	3	94	13	10	19	2	44	
Peak Factor				0.899				0.583				0.673					0.756	
Peak Hour From 07:00 AM to 09:45 AM - Peak 1 of 1																		
By Approach	08:00 AM				08:00 AM				08:00 AM				07:45 AM					
Volume	7	29	151	187	64	0	27	91	207	36	10	253	31	24	77	11	143	
Percent	3.7	15.5	80.7		70.3	0.0	29.7		81.8	14.2	4.0		21.7	16.8	53.8	7.7		
High Int.	08:15 AM				08:30 AM				08:30 AM				07:45 AM					
Volume	3	11	38	52	23	0	16	39	74	17	3	94	8	5	32	2	47	
Peak Factor				0.899				0.583				0.673					0.761	
Peak Hour From 10:00 AM to 01:45 PM - Peak 1 of 1																		
Intersection	11:45 AM																	
Volume	0	29	163	192	45	0	45	90	248	39	10	297	89	55	83	20	247	826
Percent	0.0	15.1	84.9		50.0	0.0	50.0		83.5	13.1	3.4		36.0	22.3	33.6	8.1		
12:15 Volume	0	5	38	43	10	0	8	18	73	9	4	86	30	13	38	4	85	232
Peak Factor																		0.890
High Int.	11:45 AM				12:00 PM				12:15 PM				12:15 PM					
Volume	0	8	46	54	15	0	16	31	73	9	4	86	30	13	38	4	85	
Peak Factor				0.889				0.726				0.863					0.726	
Peak Hour From 10:00 AM to 01:45 PM - Peak 1 of 1																		
By Approach	11:00 AM				12:00 PM				11:45 AM				11:45 AM					
Volume	16	30	163	209	50	0	47	97	248	39	10	297	89	55	83	20	247	
Percent	7.7	14.4	78.0		51.5	0.0	48.5		83.5	13.1	3.4		36.0	22.3	33.6	8.1		
High Int.	11:00 AM				12:00 PM				12:15 PM				12:15 PM					
Volume	10	7	49	66	15	0	16	31	73	9	4	86	30	13	38	4	85	
Peak Factor				0.792				0.782				0.863					0.726	
Peak Hour From 02:00 PM to 05:45 PM - Peak 1 of 1																		
Intersection	04:00 PM																	
Volume	2	41	210	253	78	0	64	142	696	59	10	765	95	83	114	24	316	1476
Percent	0.8	16.2	83.0		54.9	0.0	45.1		91.0	7.7	1.3		30.1	26.3	36.1	7.6		
04:30 Volume	0	9	84	93	21	0	7	28	209	14	0	223	24	18	39	12	93	437
Peak Factor																		0.844
High Int.	04:30 PM				04:45 PM				04:30 PM				04:00 PM					
Volume	0	9	84	93	34	0	33	67	209	14	0	223	34	23	30	7	94	
Peak Factor				0.680				0.530				0.858					0.840	
Peak Hour From 02:00 PM to 05:45 PM - Peak 1 of 1																		
By Approach	05:00 PM				04:30 PM				04:00 PM				05:00 PM					
Volume	8	50	210	268	102	0	76	178	696	59	10	765	148	100	147	28	423	
Percent	3.0	18.7	78.4		57.3	0.0	42.7		91.0	7.7	1.3		35.0	23.6	34.8	6.6		
High Int.	05:45 PM				04:45 PM				04:30 PM				05:00 PM					
Volume	6	28	82	116	34	0	33	67	209	14	0	223	45	32	37	8	122	
Peak Factor				0.578				0.664				0.858					0.867	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Arlington St.-Atlantic Ave. & Tarboro St
Site Code : 01421137
Start Date : 7/10/2003
Page No : 1

Groups Printed- 1 - Unshifted

	Atlantic Ave. Southbound				Arlington St. Northbound				Tarboro St. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
07:00 AM	10	25	0	35	0	15	4	19	2	12	6	20	74
07:15 AM	10	32	0	42	0	46	6	52	4	25	2	31	125
07:30 AM	6	31	0	37	0	48	10	58	2	17	5	24	119
07:45 AM	17	51	0	68	0	70	6	76	3	29	7	39	183
Total	43	139	0	182	0	179	26	205	11	83	20	114	501
08:00 AM	17	40	0	57	0	48	9	57	1	21	3	25	139
08:15 AM	8	47	0	55	0	37	9	46	1	18	4	23	124
08:30 AM	7	25	0	32	0	26	3	29	1	26	1	28	89
08:45 AM	5	20	0	25	0	49	12	61	0	26	0	26	112
Total	37	132	0	169	0	160	33	193	3	91	8	102	464
11:00 AM	16	31	0	47	0	58	14	72	7	58	10	75	194
11:15 AM	12	31	0	43	0	29	3	32	8	42	1	51	126
11:30 AM	11	43	0	54	0	50	14	64	8	56	2	66	184
11:45 AM	12	29	0	41	0	32	19	51	10	45	5	60	152
Total	51	134	0	185	0	169	50	219	33	201	18	252	656
12:00 PM	11	29	0	40	0	38	11	49	2	51	4	57	146
12:15 PM	9	38	0	47	0	50	4	54	1	35	1	37	138
12:30 PM	10	31	0	41	0	44	4	48	5	38	1	44	133
12:45 PM	12	33	0	45	0	41	7	48	4	42	3	49	142
Total	42	131	0	173	0	173	26	199	12	166	9	187	559
04:00 PM	19	42	0	61	0	43	11	54	8	43	2	53	168
04:15 PM	15	36	0	51	0	24	32	56	6	78	1	85	192
04:30 PM	21	39	0	60	0	63	17	80	6	67	5	78	218
04:45 PM	28	37	0	65	0	57	16	73	12	65	7	84	222
Total	83	154	0	237	0	187	76	263	32	253	15	300	800
05:00 PM	29	55	0	84	0	81	16	97	2	80	10	92	273
05:15 PM	21	38	0	59	0	56	19	75	4	83	10	97	231
05:30 PM	22	38	0	60	0	72	29	101	6	73	8	87	248
05:45 PM	22	36	0	58	0	57	25	82	4	68	11	83	223
Total	94	167	0	261	0	266	89	355	16	304	39	359	975
Grand Total	350	857	0	1207	0	1134	300	1434	107	1098	109	1314	3955
Apprch %	29.0	71.0	0.0		0.0	79.1	20.9		8.1	83.6	8.3		
Total %	8.8	21.7	0.0	30.5	0.0	28.7	7.6	36.3	2.7	27.8	2.8	33.2	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Arlington St.-Atlantic Ave. & Tarboro St
Site Code : 01421137
Start Date : 7/10/2003

	Atlantic Ave. Southbound				Arlington St. Northbound				Tarboro St. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1													
Intersection	07:15 AM												
Volume	50	154	0	204	0	212	31	243	10	92	17	119	566
Percent	24.5	75.5	0.0		0.0	87.2	12.8		8.4	77.3	14.3		
07:45 Volume	17	51	0	68	0	70	6	76	3	29	7	39	183
Peak Factor													0.773
High Int.	07:45 AM				07:45 AM				07:45 AM				
Volume	17	51	0	68	0	70	6	76	3	29	7	39	
Peak Factor				0.750				0.799				0.763	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1													
By Approach	07:30 AM				07:15 AM				07:15 AM				
Volume	48	169	0	217	0	212	31	243	10	92	17	119	
Percent	22.1	77.9	0.0		0.0	87.2	12.8		8.4	77.3	14.3		
High Int.	07:45 AM				07:45 AM				07:45 AM				
Volume	17	51	0	68	0	70	6	76	3	29	7	39	
Peak Factor				0.798				0.799				0.763	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1													
Intersection	11:00 AM												
Volume	51	134	0	185	0	169	50	219	33	201	18	252	656
Percent	27.6	72.4	0.0		0.0	77.2	22.8		13.1	79.8	7.1		
11:00 Volume	16	31	0	47	0	58	14	72	7	58	10	75	194
Peak Factor													0.845
High Int.	11:30 AM				11:00 AM				11:00 AM				
Volume	11	43	0	54	0	58	14	72	7	58	10	75	
Peak Factor				0.856				0.760				0.840	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1													
By Approach	11:00 AM				11:00 AM				11:00 AM				
Volume	51	134	0	185	0	169	50	219	33	201	18	252	
Percent	27.6	72.4	0.0		0.0	77.2	22.8		13.1	79.8	7.1		
High Int.	11:30 AM				11:00 AM				11:00 AM				
Volume	11	43	0	54	0	58	14	72	7	58	10	75	
Peak Factor				0.856				0.760				0.840	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1													
Intersection	05:00 PM												
Volume	94	167	0	261	0	266	89	355	16	304	39	359	975
Percent	36.0	64.0	0.0		0.0	74.9	25.1		4.5	84.7	10.9		
05:00 Volume	29	55	0	84	0	81	16	97	2	80	10	92	273
Peak Factor													0.893
High Int.	05:00 PM				05:30 PM				05:15 PM				
Volume	29	55	0	84	0	72	29	101	4	83	10	97	
Peak Factor				0.777				0.879				0.925	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1													
By Approach	04:30 PM				05:00 PM				04:45 PM				
Volume	99	169	0	268	0	266	89	355	24	301	35	360	
Percent	36.9	63.1	0.0		0.0	74.9	25.1		6.7	83.6	9.7		
High Int.	05:00 PM				05:30 PM				05:15 PM				
Volume	29	55	0	84	0	72	29	101	4	83	10	97	
Peak Factor				0.798				0.879				0.928	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : hill st.-western ave. & main s
Site Code : 01421107
Start Date : 7/22/2003
Page No : 1

Groups Printed- Unshifted

	SW Main St. Southbound					Hill St. Westbound					SE Main St. Northbound					Eastbound							
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Excl. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
07:00 AM	0	2	0	0	2	1	18	5	0	24	0	1	0	0	1	0	0	0	3	0	3	27	30
07:15 AM	0	4	0	0	4	0	21	0	0	21	0	2	0	0	2	0	0	0	0	0	0	27	27
07:30 AM	0	5	0	0	5	2	30	4	0	36	0	2	0	0	2	0	0	0	2	0	2	43	45
07:45 AM	0	3	0	0	3	7	44	1	2	52	0	4	0	0	4	0	0	0	1	0	3	59	62
Total	0	14	0	0	14	10	113	10	2	133	0	9	0	0	9	0	0	0	6	0	8	156	164
08:00 AM	0	7	1	0	8	2	29	4	3	35	2	3	0	1	5	0	0	0	2	0	6	48	54
08:15 AM	0	7	5	0	12	10	37	1	0	48	0	2	0	0	2	0	0	0	1	0	1	62	63
08:30 AM	0	10	2	0	12	5	44	4	0	53	0	7	0	1	7	0	0	0	1	0	2	72	74
08:45 AM	0	5	0	3	5	8	44	2	0	54	1	5	0	0	6	0	0	0	1	0	4	65	69
Total	0	29	8	3	37	25	154	11	3	190	3	17	0	2	20	0	0	0	5	0	13	247	260
11:00 AM	0	22	6	2	28	7	39	4	0	50	2	6	0	1	8	0	0	0	5	0	8	86	94
11:15 AM	0	12	6	1	18	9	41	1	3	51	4	6	0	0	10	0	0	0	0	0	4	79	83
11:30 AM	0	31	2	0	33	10	36	0	0	46	1	6	0	0	7	0	0	0	0	0	0	86	86
11:45 AM	0	15	3	1	18	8	33	3	0	44	1	3	0	0	4	0	0	0	2	0	3	66	69
Total	0	80	17	4	97	34	149	8	3	191	8	21	0	1	29	0	0	0	7	0	15	317	332
12:00 PM	0	24	7	0	31	3	54	2	0	59	1	3	0	0	4	0	0	0	0	0	0	94	94
12:15 PM	0	22	7	3	29	4	28	3	0	35	3	8	0	2	11	0	0	0	0	0	5	75	80
12:30 PM	0	29	9	0	38	2	39	0	0	41	5	3	0	0	8	0	0	0	2	0	2	87	89
12:45 PM	0	23	9	5	32	6	35	0	3	41	2	8	0	0	10	0	0	0	7	0	15	83	98
Total	0	98	32	8	130	15	156	5	3	176	11	22	0	2	33	0	0	0	9	0	22	339	361
04:00 PM	0	39	9	0	48	11	43	5	2	59	0	5	0	1	5	0	0	0	0	0	3	112	115
04:15 PM	0	29	9	1	38	2	26	2	0	30	1	9	0	0	10	0	0	0	10	0	11	78	89
04:30 PM	0	23	6	1	29	7	30	2	0	39	2	5	0	1	7	0	0	0	7	0	9	75	84
04:45 PM	0	20	6	0	26	7	31	3	1	41	2	3	0	0	5	0	0	0	2	0	3	72	75
Total	0	111	30	2	141	27	130	12	3	169	5	22	0	2	27	0	0	0	19	0	26	337	363
05:00 PM	0	14	5	0	19	1	26	9	0	36	1	6	0	0	7	0	0	0	0	0	0	62	62
05:15 PM	0	6	4	0	10	1	24	1	0	26	1	3	0	0	4	0	0	0	0	0	0	40	40
05:30 PM	0	20	1	0	21	0	21	2	0	23	2	1	0	0	3	0	0	0	6	0	6	47	53
05:45 PM	0	14	2	0	16	0	27	2	0	29	0	0	0	0	0	0	0	0	2	0	2	45	47
Total	0	54	12	0	66	2	98	14	0	114	4	10	0	0	14	0	0	0	8	0	8	194	202
Grand Total	0	386	99	17	485	113	800	60	14	973	31	101	0	7	132	0	0	0	54	0	92	1590	1682
Apprch %	0.0	79.6	20.4			11.6	82.2	6.2			23.5	76.5	0.0			0.0	0.0	0.0					
Total %	0.0	24.3	6.2		30.5	7.1	50.3	3.8		61.2	1.9	6.4	0.0		8.3	0.0	0.0	0.0		0.0	5.5	94.5	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : hill st.-western ave. & main s
Site Code : 01421107
Start Date : 7/22/2003
Page No : 2

	SW Main St. Southbound				Hill St. Westbound				SE Main St. Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	08:00 AM																
Volume	0	29	8	37	25	154	11	190	3	17	0	20	0	0	0	0	247
Percent	0.0	78.4	21.6		13.2	81.1	5.8		15.0	85.0	0.0		0.0	0.0	0.0		
08:30 Volume	0	10	2	12	5	44	4	53	0	7	0	7	0	0	0	0	72
Peak Factor																	0.858
High Int.	08:15 AM				08:45 AM				08:30 AM				6:45:00 AM				
Volume	0	7	5	12	8	44	2	54	0	7	0	7					
Peak Factor				0.771				0.880				0.714					
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	08:00 AM				08:00 AM				08:00 AM				07:00 AM				
Volume	0	29	8	37	25	154	11	190	3	17	0	20	0	0	0	0	
Percent	0.0	78.4	21.6		13.2	81.1	5.8		15.0	85.0	0.0		-	-	-		
High Int.	08:15 AM				08:45 AM				08:30 AM				-				
Volume	0	7	5	12	8	44	2	54	0	7	0	7	-	-	-	-	
Peak Factor				0.771				0.880				0.714				-	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Intersection	12:00 PM																
Volume	0	98	32	130	15	156	5	176	11	22	0	33	0	0	0	0	339
Percent	0.0	75.4	24.6		8.5	88.6	2.8		33.3	66.7	0.0		0.0	0.0	0.0		
12:00 Volume	0	24	7	31	3	54	2	59	1	3	0	4	0	0	0	0	94
Peak Factor																	0.902
High Int.	12:30 PM				12:00 PM				12:15 PM								
Volume	0	29	9	38	3	54	2	59	3	8	0	11					
Peak Factor				0.855				0.746				0.750					
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
By Approach	12:00 PM				11:15 AM				12:00 PM				11:00 AM				
Volume	0	98	32	130	30	164	6	200	11	22	0	33	0	0	0	0	
Percent	0.0	75.4	24.6		15.0	82.0	3.0		33.3	66.7	0.0		-	-	-		
High Int.	12:30 PM				12:00 PM				12:15 PM				-				
Volume	0	29	9	38	3	54	2	59	3	8	0	11	-	-	-	-	
Peak Factor				0.855				0.847				0.750				-	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:00 PM																
Volume	0	111	30	141	27	130	12	169	5	22	0	27	0	0	0	0	337
Percent	0.0	78.7	21.3		16.0	76.9	7.1		18.5	81.5	0.0		0.0	0.0	0.0		
04:00 Volume	0	39	9	48	11	43	5	59	0	5	0	5	0	0	0	0	112
Peak Factor																	0.752
High Int.	04:00 PM				04:00 PM				04:15 PM								
Volume	0	39	9	48	11	43	5	59	1	9	0	10					
Peak Factor				0.734				0.716				0.675					
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:00 PM				04:00 PM				04:15 PM				04:00 PM				
Volume	0	111	30	141	27	130	12	169	6	23	0	29	0	0	0	0	
Percent	0.0	78.7	21.3		16.0	76.9	7.1		20.7	79.3	0.0		-	-	-		
High Int.	04:00 PM				04:00 PM				04:15 PM				-				
Volume	0	39	9	48	11	43	5	59	1	9	0	10	-	-	-	-	
Peak Factor				0.734				0.716				0.725				-	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Franklin St. & Thomas S
Site Code : 01320112
Start Date : 5/27/2003
Page No : 1

Groups Printed- Unshifted

	Franklin St. Southbound				Thomas St. Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
07:00 AM	0	46	0	46	0	15	0	15	0	0	0	0	0	0	0	0	61
07:15 AM	0	54	2	56	0	17	0	17	0	0	0	0	0	0	0	0	73
07:30 AM	0	49	3	52	6	44	0	50	0	0	0	0	0	0	0	0	102
07:45 AM	0	114	2	116	9	50	0	59	0	0	0	0	0	0	0	0	175
Total	0	263	7	270	15	126	0	141	0	0	0	0	0	0	0	0	411
08:00 AM	0	122	3	125	10	58	0	68	0	0	0	0	0	0	0	0	193
08:15 AM	0	103	1	104	14	62	0	76	0	0	0	0	0	0	0	0	180
08:30 AM	0	90	3	93	7	53	0	60	0	0	0	0	0	0	0	0	153
08:45 AM	0	71	5	76	22	72	0	94	0	0	0	0	0	0	0	0	170
Total	0	386	12	398	53	245	0	298	0	0	0	0	0	0	0	0	696
11:00 AM	0	76	7	83	20	101	0	121	0	0	0	0	0	0	0	0	204
11:15 AM	0	52	7	59	21	102	0	123	0	0	0	0	0	0	0	0	182
11:30 AM	0	62	4	66	28	101	0	129	0	0	0	0	0	0	0	0	195
11:45 AM	0	73	16	89	26	123	0	149	0	0	0	0	0	0	0	0	238
Total	0	263	34	297	95	427	0	522	0	0	0	0	0	0	0	0	819
12:00 PM	0	82	15	97	28	141	0	169	0	0	0	0	0	0	0	0	266
12:15 PM	0	78	9	87	25	108	0	133	0	0	0	0	0	0	0	0	220
12:30 PM	0	69	7	76	30	128	0	158	0	0	0	0	0	0	0	0	234
12:45 PM	0	82	12	94	32	104	0	136	0	0	0	0	0	0	0	0	230
Total	0	311	43	354	115	481	0	596	0	0	0	0	0	0	0	0	950
04:00 PM	0	88	12	100	23	90	0	113	0	0	0	0	0	0	0	0	213
04:15 PM	0	80	4	84	26	98	0	124	0	0	0	0	0	0	0	0	208
04:30 PM	0	65	9	74	22	131	0	153	0	0	0	0	0	0	0	0	227
04:45 PM	0	60	6	66	12	85	0	97	0	0	0	0	0	0	0	0	163
Total	0	293	31	324	83	404	0	487	0	0	0	0	0	0	0	0	811
05:00 PM	0	74	5	79	18	94	0	112	0	0	0	0	0	0	0	0	191
05:15 PM	0	72	9	81	20	137	0	157	0	0	0	0	0	0	0	0	238
05:30 PM	0	59	3	62	10	93	0	103	0	0	0	0	0	0	0	0	165
05:45 PM	0	60	0	60	7	78	0	85	0	0	0	0	0	0	0	0	145
Total	0	265	17	282	55	402	0	457	0	0	0	0	0	0	0	0	739
Grand Total	0	1781	144	1925	416	2085	0	2501	0	0	0	0	0	0	0	0	4426
Apprch %	0.0	92.5	7.5		16.6	83.4	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	40.2	3.3	43.5	9.4	47.1	0.0	56.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Franklin St. & Thomas S
Site Code : 01320112
Start Date : 5/27/2003

	Franklin St. Southbound				Thomas St. Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:45 AM																
Volume	0	429	9	438	40	223	0	263	0	0	0	0	0	0	0	0	701
Percent	0.0	97.9	2.1		15.2	84.8	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
08:00 Volume	0	122	3	125	10	58	0	68	0	0	0	0	0	0	0	0	193
Peak Factor																	0.908
High Int.	08:00 AM				08:15 AM				6:45:00 AM				6:45:00 AM				
Volume	0	122	3	125	14	62	0	76									
Peak Factor				0.876				0.865									
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	07:45 AM				08:00 AM				07:00 AM				07:00 AM				
Volume	0	429	9	438	53	245	0	298	0	0	0	0	0	0	0	0	
Percent	0.0	97.9	2.1		17.8	82.2	0.0		-	-	-		-	-	-		
High Int.	08:00 AM				08:45 AM				-				-				
Volume	0	122	3	125	22	72	0	94	-	-	-	-	-	-	-	-	
Peak Factor				0.876				0.793				-				-	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Intersection	11:45 AM																
Volume	0	302	47	349	109	500	0	609	0	0	0	0	0	0	0	0	958
Percent	0.0	86.5	13.5		17.9	82.1	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
12:00 Volume	0	82	15	97	28	141	0	169	0	0	0	0	0	0	0	0	266
Peak Factor																	0.900
High Int.	12:00 PM				12:00 PM												
Volume	0	82	15	97	28	141	0	169									
Peak Factor				0.899				0.901									
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
By Approach	12:00 PM				11:45 AM				11:00 AM				11:00 AM				
Volume	0	311	43	354	109	500	0	609	0	0	0	0	0	0	0	0	
Percent	0.0	87.9	12.1		17.9	82.1	0.0		-	-	-		-	-	-		
High Int.	12:00 PM				12:00 PM				-				-				
Volume	0	82	15	97	28	141	0	169	-	-	-	-	-	-	-	-	
Peak Factor				0.912				0.901				-				-	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:30 PM																
Volume	0	271	29	300	72	447	0	519	0	0	0	0	0	0	0	0	819
Percent	0.0	90.3	9.7		13.9	86.1	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
05:15 Volume	0	72	9	81	20	137	0	157	0	0	0	0	0	0	0	0	238
Peak Factor																	0.860
High Int.	05:15 PM				05:15 PM												
Volume	0	72	9	81	20	137	0	157									
Peak Factor				0.926				0.826									
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:00 PM				04:30 PM				04:00 PM				04:00 PM				
Volume	0	293	31	324	72	447	0	519	0	0	0	0	0	0	0	0	
Percent	0.0	90.4	9.6		13.9	86.1	0.0		-	-	-		-	-	-		
High Int.	04:00 PM				05:15 PM				-				-				
Volume	0	88	12	100	20	137	0	157	-	-	-	-	-	-	-	-	
Peak Factor				0.810				0.826				-				-	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Church St. & Thomas S
Site Code : 01421100
Start Date : 5/21/2003
Page No : 1

Groups Printed- Unshifted

	Southbound					Thomas St. Westbound					Church St. Northbound					Eastbound							
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Excl u. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
07:00 AM	0	0	0	0	0	0	22	6	0	28	16	47	0	0	63	0	0	0	0	0	0	91	91
07:15 AM	0	0	0	0	0	0	23	1	0	24	16	56	0	0	72	0	0	0	0	0	0	96	96
07:30 AM	0	0	0	0	0	0	36	4	0	40	17	64	0	0	81	0	0	0	0	0	0	121	121
07:45 AM	0	0	0	0	0	0	57	5	0	62	21	73	0	0	94	0	0	0	0	0	0	156	156
Total	0	0	0	0	0	0	138	16	0	154	70	240	0	0	310	0	0	0	0	0	0	464	464
08:00 AM	0	0	0	0	0	0	58	10	0	68	42	88	0	1	130	0	0	0	0	0	1	198	199
08:15 AM	0	0	0	0	0	0	56	2	0	58	32	75	0	0	107	0	0	0	0	0	0	165	165
08:30 AM	0	0	0	0	0	0	34	6	0	40	44	77	0	0	121	0	0	0	0	0	0	161	161
08:45 AM	0	0	0	0	0	0	63	6	0	69	26	61	0	0	87	0	0	0	0	0	0	156	156
Total	0	0	0	0	0	0	211	24	0	235	144	301	0	1	445	0	0	0	0	0	1	680	681
11:00 AM	0	0	0	0	0	0	58	8	0	66	35	76	0	0	111	0	0	0	0	0	0	177	177
11:15 AM	0	0	0	0	0	0	66	11	0	77	38	70	0	0	108	0	0	0	0	0	0	185	185
11:30 AM	0	0	0	0	0	0	78	12	2	90	44	94	0	1	138	0	0	0	0	0	3	228	231
11:45 AM	0	0	0	1	0	0	77	9	1	86	57	76	0	0	133	0	0	0	0	0	2	219	221
Total	0	0	0	1	0	0	279	40	3	319	174	316	0	1	490	0	0	0	0	0	5	809	814
12:00 PM	0	0	0	0	0	0	62	15	0	77	63	105	0	0	168	0	0	0	0	0	0	245	245
12:15 PM	0	0	0	0	0	0	67	9	0	76	61	95	0	0	156	0	0	0	0	0	0	232	232
12:30 PM	0	0	0	0	0	0	51	8	0	59	48	84	0	0	132	0	0	0	0	0	0	191	191
12:45 PM	0	0	0	0	0	0	59	12	0	71	61	95	0	0	156	0	0	0	0	0	0	227	227
Total	0	0	0	0	0	0	239	44	0	283	233	379	0	0	612	0	0	0	0	0	0	895	895
04:00 PM	0	0	0	0	0	0	66	14	0	80	40	68	0	0	108	0	0	0	1	0	1	188	189
04:15 PM	0	0	0	0	0	0	73	6	0	79	56	100	0	0	156	0	0	0	0	0	0	235	235
04:30 PM	0	0	0	0	0	0	74	13	0	87	41	82	0	0	123	0	0	0	0	0	0	210	210
04:45 PM	0	0	0	1	0	0	73	9	1	82	38	115	0	0	153	0	0	0	0	0	2	235	237
Total	0	0	0	1	0	0	286	42	1	328	175	365	0	0	540	0	0	0	1	0	3	868	871
05:00 PM	0	0	0	0	0	0	97	16	1	113	65	179	0	1	244	0	0	0	0	0	2	357	359
05:15 PM	0	0	0	0	0	0	71	9	0	80	51	104	0	0	155	0	0	0	0	0	0	235	235
05:30 PM	0	0	0	0	0	0	58	22	0	80	40	93	0	0	133	0	0	0	0	0	0	213	213
05:45 PM	0	0	0	0	0	0	39	10	0	49	27	72	0	0	99	0	0	0	0	0	0	148	148
Total	0	0	0	0	0	0	265	57	1	322	183	448	0	1	631	0	0	0	0	0	2	953	955
Grand Total	0	0	0	2	0	0	1418	223	5	1641	979	2049	0	3	3028	0	0	0	1	0	11	4669	4680
Apprch %	0.0	0.0	0.0			0.0	86.4	13.6			32.3	67.7	0.0			0.0	0.0	0.0					
Total %	0.0	0.0	0.0		0.0	0.0	30.4	4.8		35.1	21.0	43.9	0.0		64.9	0.0	0.0	0.0		0.0	0.2	99.8	

Total without Peds
Total with Peds

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Church St. & Thomas S
Site Code : 01421100
Start Date : 5/21/2003
Page No : 2

	Southbound				Thomas St. Westbound				Church St. Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:45 AM																
Volume	0	0	0	0	0	205	23	228	139	313	0	452	0	0	0	0	680
Percent	0.0	0.0	0.0		0.0	89.9	10.1		30.8	69.2	0.0		0.0	0.0	0.0		
08:00 Volume	0	0	0	0	0	58	10	68	42	88	0	130	0	0	0	0	198
Peak Factor																	0.859
High Int.	6:45:00 AM				08:00 AM				08:00 AM				6:45:00 AM				
Volume	0	0	0	0	0	58	10	68	42	88	0	130					
Peak Factor								0.838				0.869					
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	07:00 AM				08:00 AM				07:45 AM				07:00 AM				
Volume	0	0	0	0	0	211	24	235	139	313	0	452	0	0	0	0	
Percent	-	-	-		0.0	89.8	10.2		30.8	69.2	0.0		-	-	-		
High Int.	-				08:45 AM				08:00 AM				-				
Volume	-	-	-	-	0	63	6	69	42	88	0	130	-	-	-	-	
Peak Factor				-				0.851				0.869				-	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Intersection	11:30 AM																
Volume	0	0	0	0	0	284	45	329	225	370	0	595	0	0	0	0	924
Percent	0.0	0.0	0.0		0.0	86.3	13.7		37.8	62.2	0.0		0.0	0.0	0.0		
12:00 Volume	0	0	0	0	0	62	15	77	63	105	0	168	0	0	0	0	245
Peak Factor																	0.943
High Int.					11:30 AM				12:00 PM								
Volume	0	0	0	0	0	78	12	90	63	105	0	168					
Peak Factor								0.914				0.885					
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
By Approach	11:00 AM				11:15 AM				12:00 PM				11:00 AM				
Volume	0	0	0	0	0	283	47	330	233	379	0	612	0	0	0	0	
Percent	-	-	-		0.0	85.8	14.2		38.1	61.9	0.0		-	-	-		
High Int.	-				11:30 AM				12:00 PM				-				
Volume	-	-	-	-	0	78	12	90	63	105	0	168	-	-	-	-	
Peak Factor				-				0.917				0.911				-	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:45 PM																
Volume	0	0	0	0	0	299	56	355	194	491	0	685	0	0	0	0	1040
Percent	0.0	0.0	0.0		0.0	84.2	15.8		28.3	71.7	0.0		0.0	0.0	0.0		
05:00 Volume	0	0	0	0	0	97	16	113	65	179	0	244	0	0	0	0	357
Peak Factor																	0.728
High Int.					05:00 PM				05:00 PM								
Volume	0	0	0	0	0	97	16	113	65	179	0	244					
Peak Factor								0.785				0.702					
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:00 PM				04:30 PM				04:45 PM				04:00 PM				
Volume	0	0	0	0	0	315	47	362	194	491	0	685	0	0	0	0	
Percent	-	-	-		0.0	87.0	13.0		28.3	71.7	0.0		-	-	-		
High Int.	-				05:00 PM				05:00 PM				-				
Volume	-	-	-	-	0	97	16	113	65	179	0	244	-	-	-	-	
Peak Factor				-				0.801				0.702				-	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Franklin St. & Sunset Ave
Site Code : 01321108
Start Date : 5/27/2003
Page No : 1

Groups Printed- Unshifted

	Franklin St. Southbound				Westbound				Northbound				Sunset Ave. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
07:00 AM	6	35	0	41	0	0	0	0	0	0	0	0	0	24	4	28	69
07:15 AM	14	52	0	66	0	0	0	0	0	0	0	0	0	32	13	45	111
07:30 AM	6	50	0	56	0	0	0	0	0	0	0	0	0	43	16	59	115
07:45 AM	15	95	0	110	0	0	0	0	0	0	0	0	0	59	21	80	190
Total	41	232	0	273	0	0	0	0	0	0	0	0	0	158	54	212	485
08:00 AM	12	74	0	86	0	0	0	0	0	0	0	0	0	82	18	100	186
08:15 AM	17	80	0	97	0	0	0	0	0	0	0	0	0	75	20	95	192
08:30 AM	16	65	0	81	0	0	0	0	0	0	0	0	0	72	20	92	173
08:45 AM	18	50	0	68	0	0	0	0	0	0	0	0	0	65	27	92	160
Total	63	269	0	332	0	0	0	0	0	0	0	0	0	294	85	379	711
11:00 AM	34	56	0	90	0	0	0	0	0	0	0	0	0	101	31	132	222
11:15 AM	26	65	0	91	0	0	0	0	0	0	0	0	0	87	22	109	200
11:30 AM	21	62	0	83	0	0	0	0	0	0	0	0	0	94	18	112	195
11:45 AM	29	110	0	139	0	0	0	0	0	0	0	0	0	112	24	136	275
Total	110	293	0	403	0	0	0	0	0	0	0	0	0	394	95	489	892
12:00 PM	35	80	0	115	0	0	0	0	0	0	0	0	0	96	39	135	250
12:15 PM	35	84	0	119	0	0	0	0	0	0	0	0	0	103	31	134	253
12:30 PM	30	89	0	119	0	0	0	0	0	0	0	0	0	119	31	150	269
12:45 PM	34	99	0	133	0	0	0	0	0	0	0	0	0	102	22	124	257
Total	134	352	0	486	0	0	0	0	0	0	0	0	0	420	123	543	1029
04:00 PM	13	40	0	53	0	0	0	0	0	0	0	0	0	74	16	90	143
04:15 PM	27	66	0	93	0	0	0	0	0	0	0	0	0	69	19	88	181
04:30 PM	24	60	0	84	0	0	0	0	0	0	0	0	0	97	20	117	201
04:45 PM	25	69	0	94	0	0	0	0	0	0	0	0	0	97	23	120	214
Total	89	235	0	324	0	0	0	0	0	0	0	0	0	337	78	415	739
05:00 PM	24	118	0	142	0	0	0	0	0	0	0	0	0	54	25	79	221
05:15 PM	21	68	0	89	0	0	0	0	0	0	0	0	0	93	14	107	196
05:30 PM	17	71	0	88	0	0	0	0	0	0	0	0	0	82	17	99	187
05:45 PM	41	122	0	163	0	0	0	0	0	0	0	0	0	109	24	133	296
Total	103	379	0	482	0	0	0	0	0	0	0	0	0	338	80	418	900
Grand Total	540	1760	0	2300	0	0	0	0	0	0	0	0	0	1941	515	2456	4756
Apprch %	23.5	76.5	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	79.0	21.0		
Total %	11.4	37.0	0.0	48.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.8	10.8	51.6	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Franklin St. & Sunset Ave
Site Code : 01321108
Start Date : 5/27/2003

	Franklin St. Southbound				Westbound				Northbound				Sunset Ave. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:45 AM																
Volume	60	314	0	374	0	0	0	0	0	0	0	0	0	288	79	367	741
Percent	16.0	84.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	78.5	21.5		
08:15 Volume	17	80	0	97	0	0	0	0	0	0	0	0	0	75	20	95	192
Peak Factor																	0.965
High Int.	07:45 AM				6:45:00 AM				6:45:00 AM				08:00 AM				
Volume	15	95	0	110	0	0	0	0	0	0	0	0	0	82	18	100	
Peak Factor				0.850												0.918	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	07:45 AM				07:00 AM				07:00 AM				08:00 AM				
Volume	60	314	0	374	0	0	0	0	0	0	0	0	0	294	85	379	
Percent	16.0	84.0	0.0		-	-	-		-	-	-		0.0	77.6	22.4		
High Int.	07:45 AM				-				-				08:00 AM				
Volume	15	95	0	110	-	-	-	-	-	-	-	-	0	82	18	100	
Peak Factor				0.850				-				-				0.948	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Intersection	11:45 AM																
Volume	129	363	0	492	0	0	0	0	0	0	0	0	0	430	125	555	1047
Percent	26.2	73.8	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	77.5	22.5		
11:45 Volume	29	110	0	139	0	0	0	0	0	0	0	0	0	112	24	136	275
Peak Factor																	0.952
High Int.	11:45 AM												12:30 PM				
Volume	29	110	0	139	0	0	0	0	0	0	0	0	0	119	31	150	
Peak Factor				0.885												0.925	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
By Approach	11:45 AM				11:00 AM				11:00 AM				11:45 AM				
Volume	129	363	0	492	0	0	0	0	0	0	0	0	0	430	125	555	
Percent	26.2	73.8	0.0		-	-	-		-	-	-		0.0	77.5	22.5		
High Int.	11:45 AM				-				-				12:30 PM				
Volume	29	110	0	139	-	-	-	-	-	-	-	-	0	119	31	150	
Peak Factor				0.885				-				-				0.925	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	05:00 PM																
Volume	103	379	0	482	0	0	0	0	0	0	0	0	0	338	80	418	900
Percent	21.4	78.6	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	80.9	19.1		
05:45 Volume	41	122	0	163	0	0	0	0	0	0	0	0	0	109	24	133	296
Peak Factor																	0.760
High Int.	05:45 PM												05:45 PM				
Volume	41	122	0	163	0	0	0	0	0	0	0	0	0	109	24	133	
Peak Factor				0.739												0.786	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	05:00 PM				04:00 PM				04:00 PM				04:30 PM				
Volume	103	379	0	482	0	0	0	0	0	0	0	0	0	341	82	423	
Percent	21.4	78.6	0.0		-	-	-		-	-	-		0.0	80.6	19.4		
High Int.	05:45 PM				-				-				04:45 PM				
Volume	41	122	0	163	-	-	-	-	-	-	-	-	0	97	23	120	
Peak Factor				0.739				-				-				0.881	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Church St. & Sunset Ave
Site Code : 01421101
Start Date : 5/21/2003
Page No : 1

Groups Printed- Unshifted

	Church St. Southbound					Sunset Ave. Westbound					Church St. Northbound					Sunset Ave. Eastbound							
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	49	1	0	50	4	37	0	0	41	0	91	91
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	55	5	2	60	22	42	0	1	64	3	124	127
07:30 AM	0	0	0	2	0	0	0	0	0	0	0	76	5	0	81	18	48	0	0	66	2	147	149
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	89	8	0	97	21	63	0	0	84	0	181	181
Total	0	0	0	2	0	0	0	0	0	0	0	269	19	2	288	65	190	0	1	255	5	543	548
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	105	11	0	116	35	46	0	0	81	1	197	198
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	100	6	0	106	33	41	0	0	74	0	180	180
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	106	5	1	111	26	50	0	0	76	1	187	188
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	77	9	0	86	10	68	0	0	78	0	164	164
Total	0	0	0	0	0	0	0	0	1	0	0	388	31	1	419	104	205	0	0	309	2	728	730
11:00 AM	0	0	0	2	0	0	0	0	0	0	0	102	6	0	108	27	65	0	0	92	2	200	202
11:15 AM	0	0	0	1	0	0	0	0	0	0	0	80	9	0	89	23	66	0	2	89	3	178	181
11:30 AM	0	0	0	4	0	0	0	0	0	0	0	105	14	4	119	17	64	0	2	81	10	200	210
11:45 AM	0	0	0	2	0	0	0	0	1	0	0	95	4	2	99	26	80	0	1	106	6	205	211
Total	0	0	0	9	0	0	0	0	1	0	0	382	33	6	415	93	275	0	5	368	21	783	804
12:00 PM	0	0	0	1	0	0	0	0	0	0	0	120	12	4	132	28	84	0	2	112	7	244	251
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	130	9	0	139	27	82	0	6	109	6	248	254
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	92	14	0	106	27	93	0	4	120	4	226	230
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	104	5	1	109	32	72	0	2	104	3	213	216
Total	0	0	0	1	0	0	0	0	0	0	0	446	40	5	486	114	331	0	14	445	20	931	951
04:00 PM	0	0	0	1	0	0	0	0	0	0	0	119	8	2	127	24	79	0	1	103	4	230	234
04:15 PM	0	0	0	2	0	0	0	0	1	0	0	124	10	1	134	28	80	0	2	108	6	242	248
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	105	8	0	113	24	82	0	0	106	0	219	219
04:45 PM	0	0	0	1	0	0	0	0	1	0	0	117	6	1	123	24	89	0	1	113	4	236	240
Total	0	0	0	4	0	0	0	0	2	0	0	465	32	4	497	100	330	0	4	430	14	927	941
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	163	15	1	178	21	81	0	0	102	1	280	281
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	120	11	2	131	14	91	0	0	105	2	236	238
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	97	10	0	107	18	68	0	0	86	0	193	193
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	78	10	0	88	6	49	0	0	55	0	143	143
Total	0	0	0	0	0	0	0	0	0	0	0	458	46	3	504	59	289	0	0	348	3	852	855
Grand Total	0	0	0	16	0	0	0	0	4	0	0	2408	201	21	2609	535	1620	0	24	2155	65	4764	4829
Apprch %	0.0	0.0	0.0			0.0	0.0	0.0			0.0	92.3	7.7			24.8	75.2	0.0					
Total %	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	50.5	4.2		54.8	11.2	34.0	0.0		45.2	1.3	98.7	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Church St. & Sunset Av
Site Code : 01421101
Start Date : 5/21/2003
Page No : 2

	Church St. Southbound				Sunset Ave. Westbound				Church St. Northbound				Sunset Ave. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:45 AM																
Volume	0	0	0	0	0	0	0	0	0	400	30	430	115	200	0	315	745
Percent	0.0	0.0	0.0		0.0	0.0	0.0		0.0	93.0	7.0		36.5	63.5	0.0		
08:00 Volume	0	0	0	0	0	0	0	0	0	105	11	116	35	46	0	81	197
Peak Factor																	0.945
High Int.	6:45:00 AM				6:45:00 AM				08:00 AM				07:45 AM				
Volume	0	0	0	0	0	0	0	0	0	105	11	116	21	63	0	84	
Peak Factor												0.927				0.938	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	07:00 AM				07:00 AM				07:45 AM				07:45 AM				
Volume	0	0	0	0	0	0	0	0	0	400	30	430	115	200	0	315	
Percent	-	-	-		-	-	-		0.0	93.0	7.0		36.5	63.5	0.0		
High Int.	-				-				08:00 AM				07:45 AM				
Volume	-	-	-	-	-	-	-	-	0	105	11	116	21	63	0	84	
Peak Factor				-				-				0.927				0.938	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Intersection	12:00 PM																
Volume	0	0	0	0	0	0	0	0	0	446	40	486	114	331	0	445	931
Percent	0.0	0.0	0.0		0.0	0.0	0.0		0.0	91.8	8.2		25.6	74.4	0.0		
12:15 Volume	0	0	0	0	0	0	0	0	0	130	9	139	27	82	0	109	248
Peak Factor																	0.939
High Int.									12:15 PM				12:30 PM				
Volume	0	0	0	0	0	0	0	0	0	130	9	139	27	93	0	120	
Peak Factor												0.874				0.927	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
By Approach	11:00 AM				11:00 AM				11:30 AM				11:45 AM				
Volume	0	0	0	0	0	0	0	0	0	450	39	489	108	339	0	447	
Percent	-	-	-		-	-	-		0.0	92.0	8.0		24.2	75.8	0.0		
High Int.	-				-				12:15 PM				12:30 PM				
Volume	-	-	-	-	-	-	-	-	0	130	9	139	27	93	0	120	
Peak Factor				-				-				0.879				0.931	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:15 PM																
Volume	0	0	0	0	0	0	0	0	0	509	39	548	97	332	0	429	977
Percent	0.0	0.0	0.0		0.0	0.0	0.0		0.0	92.9	7.1		22.6	77.4	0.0		
05:00 Volume	0	0	0	0	0	0	0	0	0	163	15	178	21	81	0	102	280
Peak Factor																	0.872
High Int.									05:00 PM				04:45 PM				
Volume	0	0	0	0	0	0	0	0	0	163	15	178	24	89	0	113	
Peak Factor												0.770				0.949	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:00 PM				04:00 PM				04:15 PM				04:00 PM				
Volume	0	0	0	0	0	0	0	0	0	509	39	548	100	330	0	430	
Percent	-	-	-		-	-	-		0.0	92.9	7.1		23.3	76.7	0.0		
High Int.	-				-				05:00 PM				04:45 PM				
Volume	-	-	-	-	-	-	-	-	0	163	15	178	24	89	0	113	
Peak Factor				-				-				0.770				0.951	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Franklin St. & Western Ave
Site Code : 01321107
Start Date : 5/27/2003
Page No : 1

Groups Printed- Unshifted

	Franklin St. Southbound				Western Ave Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
07:00 AM	0	37	3	40	3	9	0	12	0	0	0	0	0	0	0	0	52
07:15 AM	0	50	0	50	9	21	0	30	0	0	0	0	0	0	0	0	80
07:30 AM	0	61	2	63	4	49	0	53	0	0	0	0	0	0	0	0	116
07:45 AM	0	98	2	100	2	22	0	24	0	0	0	0	0	0	0	0	124
Total	0	246	7	253	18	101	0	119	0	0	0	0	0	0	0	0	372
08:00 AM	0	80	3	83	7	28	0	35	0	0	0	0	0	0	0	0	118
08:15 AM	0	90	1	91	15	20	0	35	0	0	0	0	0	0	0	0	126
08:30 AM	0	77	1	78	7	16	0	23	0	0	0	0	0	0	0	0	101
08:45 AM	0	80	1	81	11	23	0	34	0	0	0	0	0	0	0	0	115
Total	0	327	6	333	40	87	0	127	0	0	0	0	0	0	0	0	460
11:00 AM	0	63	1	64	25	27	0	52	0	0	0	0	0	0	0	0	116
11:15 AM	0	81	5	86	19	27	0	46	0	0	0	0	0	0	0	0	132
11:30 AM	0	87	2	89	14	26	0	40	0	0	0	0	0	0	0	0	129
11:45 AM	0	89	8	97	15	37	0	52	0	0	0	0	0	0	0	0	149
Total	0	320	16	336	73	117	0	190	0	0	0	0	0	0	0	0	526
12:00 PM	0	93	9	102	16	32	0	48	0	0	0	0	0	0	0	0	150
12:15 PM	0	109	7	116	15	47	0	62	0	0	0	0	0	0	0	0	178
12:30 PM	0	101	8	109	13	44	0	57	0	0	0	0	0	0	0	0	166
12:45 PM	0	95	8	103	17	55	0	72	0	0	0	0	0	0	0	0	175
Total	0	398	32	430	61	178	0	239	0	0	0	0	0	0	0	0	669
04:00 PM	0	90	1	91	14	29	0	43	0	0	0	0	0	0	0	0	134
04:15 PM	0	96	3	99	12	31	0	43	0	0	0	0	0	0	0	0	142
04:30 PM	0	77	2	79	10	34	0	44	0	0	0	0	0	0	0	0	123
04:45 PM	0	80	4	84	9	23	0	32	0	0	0	0	0	0	0	0	116
Total	0	343	10	353	45	117	0	162	0	0	0	0	0	0	0	0	515
05:00 PM	0	127	6	133	18	49	0	67	0	0	0	0	0	0	0	0	200
05:15 PM	0	79	2	81	10	44	0	54	0	0	0	0	0	0	0	0	135
05:30 PM	0	79	3	82	13	25	0	38	0	0	0	0	0	0	0	0	120
05:45 PM	0	56	4	60	3	15	0	18	0	0	0	0	0	0	0	0	78
Total	0	341	15	356	44	133	0	177	0	0	0	0	0	0	0	0	533
Grand Total	0	1975	86	2061	281	733	0	1014	0	0	0	0	0	0	0	0	3075
Apprch %	0.0	95.8	4.2		27.7	72.3	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	64.2	2.8	67.0	9.1	23.8	0.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Franklin St. & Western Av
Site Code : 01321107
Start Date : 5/27/2003

	Franklin St. Southbound				Western Ave Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:30 AM																
Volume	0	329	8	337	28	119	0	147	0	0	0	0	0	0	0	0	484
Percent	0.0	97.6	2.4		19.0	81.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
08:15 Volume	0	90	1	91	15	20	0	35	0	0	0	0	0	0	0	0	126
Peak Factor																	0.960
High Int.	07:45 AM				07:30 AM				6:45:00 AM				6:45:00 AM				
Volume	0	98	2	100	4	49	0	53									
Peak Factor				0.843				0.693									
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	07:45 AM				07:30 AM				07:00 AM				07:00 AM				
Volume	0	345	7	352	28	119	0	147	0	0	0	0	0	0	0	0	
Percent	0.0	98.0	2.0		19.0	81.0	0.0		-	-	-		-	-	-		
High Int.	07:45 AM				07:30 AM				-				-				
Volume	0	98	2	100	4	49	0	53	-	-	-	-	-	-	-	-	
Peak Factor				0.880				0.693				-				-	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Intersection	12:00 PM																
Volume	0	398	32	430	61	178	0	239	0	0	0	0	0	0	0	0	669
Percent	0.0	92.6	7.4		25.5	74.5	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
12:15 Volume	0	109	7	116	15	47	0	62	0	0	0	0	0	0	0	0	178
Peak Factor																	0.940
High Int.	12:15 PM				12:45 PM												
Volume	0	109	7	116	17	55	0	72									
Peak Factor				0.927				0.830									
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
By Approach	12:00 PM				12:00 PM				11:00 AM				11:00 AM				
Volume	0	398	32	430	61	178	0	239	0	0	0	0	0	0	0	0	
Percent	0.0	92.6	7.4		25.5	74.5	0.0		-	-	-		-	-	-		
High Int.	12:15 PM				12:45 PM				-				-				
Volume	0	109	7	116	17	55	0	72	-	-	-	-	-	-	-	-	
Peak Factor				0.927				0.830				-				-	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:15 PM																
Volume	0	380	15	395	49	137	0	186	0	0	0	0	0	0	0	0	581
Percent	0.0	96.2	3.8		26.3	73.7	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
05:00 Volume	0	127	6	133	18	49	0	67	0	0	0	0	0	0	0	0	200
Peak Factor																	0.726
High Int.	05:00 PM				05:00 PM												
Volume	0	127	6	133	18	49	0	67									
Peak Factor				0.742				0.694									
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:15 PM				04:30 PM				04:00 PM				04:00 PM				
Volume	0	380	15	395	47	150	0	197	0	0	0	0	0	0	0	0	
Percent	0.0	96.2	3.8		23.9	76.1	0.0		-	-	-		-	-	-		
High Int.	05:00 PM				05:00 PM				-				-				
Volume	0	127	6	133	18	49	0	67	-	-	-	-	-	-	-	-	
Peak Factor				0.742				0.735				-				-	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Church St. & Western Ave
Site Code : 01321102
Start Date : 5/20/2003
Page No : 1

Groups Printed- Unshifted

	Southbound					Western Ave. Westbound					Church St. Northbound					Eastbound							
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
07:00 AM	0	0	0	0	0	0	22	9	0	31	5	47	0	0	52	0	0	0	0	0	0	83	83
07:15 AM	0	0	0	0	0	0	23	4	1	27	2	59	0	1	61	0	0	0	0	0	2	88	90
07:30 AM	0	0	0	2	0	0	36	9	0	45	7	69	0	0	76	0	0	0	0	0	2	121	123
07:45 AM	0	0	0	0	0	0	17	17	0	34	8	92	0	0	100	0	0	0	0	0	0	134	134
Total	0	0	0	2	0	0	98	39	1	137	22	267	0	1	289	0	0	0	0	0	4	426	430
08:00 AM	0	0	0	0	0	0	39	21	0	60	12	83	0	1	95	0	0	0	0	0	1	155	156
08:15 AM	0	0	0	0	0	0	25	23	0	48	11	70	0	0	81	0	0	0	0	0	0	129	129
08:30 AM	0	0	0	0	0	0	14	23	0	37	7	91	0	0	98	0	0	0	0	0	0	135	135
08:45 AM	0	0	0	1	0	0	26	30	1	56	6	84	0	1	90	0	0	0	0	0	3	146	149
Total	0	0	0	1	0	0	104	97	1	201	36	328	0	2	364	0	0	0	0	0	4	565	569
11:00 AM	0	0	0	1	0	0	20	17	0	37	22	106	0	0	128	0	0	0	3	0	4	165	169
11:15 AM	0	0	0	0	0	0	42	23	0	65	13	119	0	0	132	0	0	0	0	0	0	197	197
11:30 AM	0	0	0	0	0	0	34	41	0	75	7	84	0	0	91	0	0	0	0	0	0	166	166
11:45 AM	0	0	0	0	0	0	50	22	1	72	9	125	0	0	134	0	0	0	0	0	1	206	207
Total	0	0	0	1	0	0	146	103	1	249	51	434	0	0	485	0	0	0	3	0	5	734	739
12:00 PM	0	0	0	0	0	0	36	18	1	54	32	136	0	0	168	0	0	0	0	0	1	222	223
12:15 PM	0	0	0	0	0	0	38	14	0	52	13	104	0	0	117	0	0	0	0	0	0	169	169
12:30 PM	0	0	0	0	0	0	41	31	0	72	6	90	0	0	96	0	0	0	0	0	0	168	168
12:45 PM	0	0	0	0	0	0	25	31	0	56	24	141	0	0	165	0	0	0	0	0	0	221	221
Total	0	0	0	0	0	0	140	94	1	234	75	471	0	0	546	0	0	0	0	0	1	780	781
04:00 PM	0	0	0	0	0	0	17	16	0	33	16	94	0	0	110	0	0	0	0	0	0	143	143
04:15 PM	0	0	0	0	0	0	31	24	0	55	10	95	0	0	105	0	0	0	0	0	0	160	160
04:30 PM	0	0	0	0	0	0	41	24	0	65	18	137	0	0	155	0	0	0	0	0	0	220	220
04:45 PM	0	0	0	0	0	0	29	20	0	49	5	136	0	0	141	0	0	0	0	0	0	190	190
Total	0	0	0	0	0	0	118	84	0	202	49	462	0	0	511	0	0	0	0	0	0	713	713
05:00 PM	0	0	0	0	0	0	35	35	0	70	7	195	0	0	202	0	0	0	0	0	0	272	272
05:15 PM	0	0	0	0	0	0	36	10	0	46	4	171	0	0	175	0	0	0	0	0	0	221	221
05:30 PM	0	0	0	0	0	0	31	16	0	47	13	122	0	0	135	0	0	0	0	0	0	182	182
05:45 PM	0	0	0	0	0	0	36	39	0	75	14	77	0	0	91	0	0	0	0	0	0	166	166
Total	0	0	0	0	0	0	138	100	0	238	38	565	0	0	603	0	0	0	0	0	0	841	841
Grand Total	0	0	0	4	0	0	744	517	4	1261	271	2527	0	3	2798	0	0	0	3	0	14	4059	4073
Apprch %	0.0	0.0	0.0			0.0	59.0	41.0			9.7	90.3	0.0			0.0	0.0	0.0					
Total %	0.0	0.0	0.0		0.0	0.0	18.3	12.7		31.1	6.7	62.3	0.0		68.9	0.0	0.0	0.0		0.0	0.3	99.7	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Church St. & Western Ave
Site Code : 01321102
Start Date : 5/20/2003

	Southbound				Western Ave. Westbound				Church St. Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	08:00 AM																
Volume	0	0	0	0	0	104	97	201	36	328	0	364	0	0	0	0	565
Percent	0.0	0.0	0.0		0.0	51.7	48.3		9.9	90.1	0.0		0.0	0.0	0.0		
08:00 Volume	0	0	0	0	0	39	21	60	12	83	0	95	0	0	0	0	155
Peak Factor																	0.911
High Int.	6:45:00 AM				08:00 AM				08:30 AM				6:45:00 AM				
Volume	0	0	0	0	0	39	21	60	7	91	0	98					
Peak Factor								0.838				0.929					
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	07:00 AM				08:00 AM				07:45 AM				07:00 AM				
Volume	0	0	0	0	0	104	97	201	38	336	0	374	0	0	0	0	
Percent	-	-	-		0.0	51.7	48.3		10.2	89.8	0.0		-	-	-		
High Int.	-				08:00 AM				07:45 AM				-				
Volume	-	-	-	-	0	39	21	60	8	92	0	100	-	-	-	-	
Peak Factor				-				0.838				0.935				-	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Intersection	11:15 AM																
Volume	0	0	0	0	0	162	104	266	61	464	0	525	0	0	0	0	791
Percent	0.0	0.0	0.0		0.0	60.9	39.1		11.6	88.4	0.0		0.0	0.0	0.0		
12:00 Volume	0	0	0	0	0	36	18	54	32	136	0	168	0	0	0	0	222
Peak Factor																	0.891
High Int.					11:30 AM				12:00 PM								
Volume	0	0	0	0	0	34	41	75	32	136	0	168					
Peak Factor								0.887				0.781					
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
By Approach	11:00 AM				11:15 AM				12:00 PM				11:00 AM				
Volume	0	0	0	0	0	162	104	266	75	471	0	546	0	0	0	0	
Percent	-	-	-		0.0	60.9	39.1		13.7	86.3	0.0		-	-	-		
High Int.	-				11:30 AM				12:00 PM				-				
Volume	-	-	-	-	0	34	41	75	32	136	0	168	-	-	-	-	
Peak Factor				-				0.887				0.813				-	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:30 PM																
Volume	0	0	0	0	0	141	89	230	34	639	0	673	0	0	0	0	903
Percent	0.0	0.0	0.0		0.0	61.3	38.7		5.1	94.9	0.0		0.0	0.0	0.0		
05:00 Volume	0	0	0	0	0	35	35	70	7	195	0	202	0	0	0	0	272
Peak Factor																	0.830
High Int.					05:00 PM				05:00 PM								
Volume	0	0	0	0	0	35	35	70	7	195	0	202					
Peak Factor								0.821				0.833					
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:00 PM				04:15 PM				04:30 PM				04:00 PM				
Volume	0	0	0	0	0	136	103	239	34	639	0	673	0	0	0	0	
Percent	-	-	-		0.0	56.9	43.1		5.1	94.9	0.0		-	-	-		
High Int.	-				05:00 PM				05:00 PM				-				
Volume	-	-	-	-	0	35	35	70	7	195	0	202	-	-	-	-	
Peak Factor				-				0.854				0.833				-	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Franklin St. & Nash S
Site Code : 01321106
Start Date : 5/27/2003
Page No : 1

Groups Printed- Unshifted

	Franklin St. Southbound				Westbound				Northbound				Nash St. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
07:00 AM	11	29	0	40	0	0	0	0	0	0	0	0	0	10	1	11	51
07:15 AM	18	42	0	60	0	0	0	0	0	0	0	0	0	13	2	15	75
07:30 AM	26	40	0	66	0	0	0	0	0	0	0	0	0	28	3	31	97
07:45 AM	37	67	0	104	0	0	0	0	0	0	0	0	0	22	5	27	131
Total	92	178	0	270	0	0	0	0	0	0	0	0	0	73	11	84	354
08:00 AM	45	45	0	90	0	0	0	0	0	0	0	0	0	18	3	21	111
08:15 AM	26	76	0	102	0	0	0	0	0	0	0	0	0	16	9	25	127
08:30 AM	30	57	0	87	0	0	0	0	0	0	0	0	0	10	3	13	100
08:45 AM	27	58	0	85	0	0	0	0	0	0	0	0	0	20	4	24	109
Total	128	236	0	364	0	0	0	0	0	0	0	0	0	64	19	83	447
11:00 AM	32	46	0	78	0	0	0	0	0	0	0	0	0	19	9	28	106
11:15 AM	29	66	0	95	0	0	0	0	0	0	0	0	0	23	3	26	121
11:30 AM	34	65	0	99	0	0	0	0	0	0	0	0	0	11	3	14	113
11:45 AM	35	69	0	104	0	0	0	0	0	0	0	0	0	14	5	19	123
Total	130	246	0	376	0	0	0	0	0	0	0	0	0	67	20	87	463
12:00 PM	46	61	0	107	0	0	0	0	0	0	0	0	0	23	5	28	135
12:15 PM	35	82	0	117	0	0	0	0	0	0	0	0	0	35	3	38	155
12:30 PM	33	73	0	106	0	0	0	0	0	0	0	0	0	30	7	37	143
12:45 PM	34	82	0	116	0	0	0	0	0	0	0	0	0	45	7	52	168
Total	148	298	0	446	0	0	0	0	0	0	0	0	0	133	22	155	601
04:00 PM	30	69	0	99	0	0	0	0	0	0	0	0	0	20	4	24	123
04:15 PM	31	75	0	106	0	0	0	0	0	0	0	0	0	16	3	19	125
04:30 PM	31	53	0	84	0	0	0	0	0	0	0	0	0	17	3	20	104
04:45 PM	23	68	0	91	0	0	0	0	0	0	0	0	0	10	3	13	104
Total	115	265	0	380	0	0	0	0	0	0	0	0	0	63	13	76	456
05:00 PM	39	108	0	147	0	0	0	0	0	0	0	0	0	10	7	17	164
05:15 PM	19	73	0	92	0	0	0	0	0	0	0	0	0	11	6	17	109
05:30 PM	25	64	0	89	0	0	0	0	0	0	0	0	0	7	9	16	105
05:45 PM	14	39	0	53	0	0	0	0	0	0	0	0	0	6	5	11	64
Total	97	284	0	381	0	0	0	0	0	0	0	0	0	34	27	61	442
Grand Total	710	1507	0	2217	0	0	0	0	0	0	0	0	0	434	112	546	2763
Apprch %	32.0	68.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	79.5	20.5		
Total %	25.7	54.5	0.0	80.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7	4.1	19.8	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Franklin St. & Nash S
Site Code : 01321106
Start Date : 5/27/2003
Page No : 2

	Franklin St. Southbound				Westbound				Northbound				Nash St. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:45 AM																
Volume	138	245	0	383	0	0	0	0	0	0	0	0	0	66	20	86	469
Percent	36.0	64.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	76.7	23.3		
07:45 Volume	37	67	0	104	0	0	0	0	0	0	0	0	0	22	5	27	131
Peak Factor																	0.895
High Int.	07:45 AM				6:45:00 AM				6:45:00 AM				07:45 AM				
Volume	37	67	0	104	0	0	0	0	0	0	0	0	0	22	5	27	
Peak Factor				0.921												0.796	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	07:45 AM				07:00 AM				07:00 AM				07:30 AM				
Volume	138	245	0	383	0	0	0	0	0	0	0	0	0	84	20	104	
Percent	36.0	64.0	0.0		-	-	-		-	-	-		0.0	80.8	19.2		
High Int.	07:45 AM				-				-				07:30 AM				
Volume	37	67	0	104	-	-	-	-	-	-	-	-	0	28	3	31	
Peak Factor				0.921				-				-				0.839	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Intersection	12:00 PM																
Volume	148	298	0	446	0	0	0	0	0	0	0	0	0	133	22	155	601
Percent	33.2	66.8	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	85.8	14.2		
12:45 Volume	34	82	0	116	0	0	0	0	0	0	0	0	0	45	7	52	168
Peak Factor																	0.894
High Int.	12:15 PM												12:45 PM				
Volume	35	82	0	117	0	0	0	0	0	0	0	0	0	45	7	52	
Peak Factor				0.953												0.745	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
By Approach	12:00 PM				11:00 AM				11:00 AM				12:00 PM				
Volume	148	298	0	446	0	0	0	0	0	0	0	0	0	133	22	155	
Percent	33.2	66.8	0.0		-	-	-		-	-	-		0.0	85.8	14.2		
High Int.	12:15 PM				-				-				12:45 PM				
Volume	35	82	0	117	-	-	-	-	-	-	-	-	0	45	7	52	
Peak Factor				0.953				-				-				0.745	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:15 PM																
Volume	124	304	0	428	0	0	0	0	0	0	0	0	0	53	16	69	497
Percent	29.0	71.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0	76.8	23.2		
05:00 Volume	39	108	0	147	0	0	0	0	0	0	0	0	0	10	7	17	164
Peak Factor																	0.758
High Int.	05:00 PM												04:30 PM				
Volume	39	108	0	147	0	0	0	0	0	0	0	0	0	17	3	20	
Peak Factor				0.728												0.863	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:15 PM				04:00 PM				04:00 PM				04:00 PM				
Volume	124	304	0	428	0	0	0	0	0	0	0	0	0	63	13	76	
Percent	29.0	71.0	0.0		-	-	-		-	-	-		0.0	82.9	17.1		
High Int.	05:00 PM				-				-				04:00 PM				
Volume	39	108	0	147	-	-	-	-	-	-	-	-	0	20	4	24	
Peak Factor				0.728				-				-				0.792	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Church St. & Nash S
Site Code : 01321101
Start Date : 5/20/2003
Page No : 1

Groups Printed- Unshifted

	Church St. Southbound					Nash St. Westbound					Church St. Northbound					Nash St. Eastbound							
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	35	3	0	38	3	10	0	0	13	0	51	51
07:15 AM	0	0	0	1	0	0	0	0	0	0	0	60	4	1	64	2	22	0	0	24	2	88	90
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	65	7	0	72	7	24	0	1	31	1	103	104
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	82	10	0	92	7	39	0	0	46	0	138	138
Total	0	0	0	1	0	0	0	0	0	0	0	242	24	1	266	19	95	0	1	114	3	380	383
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	71	12	0	83	10	28	0	0	38	0	121	121
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	55	9	1	64	6	25	0	1	31	2	95	97
08:30 AM	0	0	0	0	0	0	0	0	1	0	0	69	7	2	76	13	13	0	0	26	3	102	105
08:45 AM	0	0	0	1	0	0	0	0	1	0	0	90	8	1	98	8	6	0	2	14	5	112	117
Total	0	0	0	1	0	0	0	0	2	0	0	285	36	4	321	37	72	0	3	109	10	430	440
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	77	4	4	81	19	17	0	0	36	4	117	121
11:15 AM	0	0	0	0	0	0	0	0	2	0	0	68	4	2	72	18	19	0	0	37	4	109	113
11:30 AM	0	0	0	0	0	0	0	0	1	0	0	76	8	0	84	15	17	0	0	32	1	116	117
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	88	12	0	100	23	32	0	0	55	0	155	155
Total	0	0	0	0	0	0	0	0	3	0	0	309	28	6	337	75	85	0	0	160	9	497	506
12:00 PM	0	0	0	1	0	0	0	0	0	0	0	88	13	0	101	26	21	0	1	47	2	148	150
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	79	9	1	88	24	19	0	0	43	1	131	132
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	58	15	1	73	23	27	0	0	50	1	123	124
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	70	7	1	77	25	39	0	2	64	3	141	144
Total	0	0	0	1	0	0	0	0	0	0	0	295	44	3	339	98	106	0	3	204	7	543	550
04:00 PM	0	0	0	1	0	0	0	0	1	0	0	88	6	1	94	17	25	0	0	42	3	136	139
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	82	13	1	95	17	27	0	1	44	2	139	141
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	90	9	0	99	17	24	0	0	41	0	140	140
04:45 PM	0	0	0	0	0	0	0	0	2	0	0	91	10	3	101	13	23	0	0	36	5	137	142
Total	0	0	0	1	0	0	0	0	3	0	0	351	38	5	389	64	99	0	1	163	10	552	562
05:00 PM	0	0	0	0	0	0	0	0	1	0	0	121	16	0	137	11	40	0	0	51	1	188	189
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	81	11	0	92	11	17	0	0	28	0	120	120
05:30 PM	0	0	0	1	0	0	0	0	1	0	0	66	6	1	72	5	33	0	4	38	7	110	117
05:45 PM	0	0	0	2	0	0	0	0	0	0	0	55	11	0	66	7	12	0	0	19	2	85	87
Total	0	0	0	3	0	0	0	0	2	0	0	323	44	1	367	34	102	0	4	136	10	503	513
Grand Total	0	0	0	7	0	0	0	0	10	0	0	1805	214	20	2019	327	559	0	12	886	49	2905	2954
Apprch %	0.0	0.0	0.0			0.0	0.0	0.0			0.0	89.4	10.6			36.9	63.1	0.0					
Total %	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	62.1	7.4		69.5	11.3	19.2	0.0		30.5	1.7	98.3	

City of Rocky Mount
Engineering Dept.
One Government Plaza
Rocky Mount, NC 27804

File Name : Church St. & Nash S
Site Code : 01321101
Start Date : 5/20/2003
Page No : 2

	Church St. Southbound				Nash St. Westbound				Church St. Northbound				Nash St. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Intersection	07:30 AM																
Volume	0	0	0	0	0	0	0	0	0	273	38	311	30	116	0	146	457
Percent	0.0	0.0	0.0		0.0	0.0	0.0		0.0	87.8	12.2		20.5	79.5	0.0		
07:45 Volume	0	0	0	0	0	0	0	0	0	82	10	92	7	39	0	46	138
Peak Factor																	0.828
High Int.	6:45:00 AM				6:45:00 AM				07:45 AM				07:45 AM				
Volume	0	0	0	0	0	0	0	0	0	82	10	92	7	39	0	46	
Peak Factor												0.845				0.793	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																	
By Approach	07:00 AM				07:00 AM				08:00 AM				07:30 AM				
Volume	0	0	0	0	0	0	0	0	0	285	36	321	30	116	0	146	
Percent	-	-	-		-	-	-		0.0	88.8	11.2		20.5	79.5	0.0		
High Int.	-				-				08:45 AM				07:45 AM				
Volume	-	-	-	-	-	-	-	-	0	90	8	98	7	39	0	46	
Peak Factor				-				-				0.819				0.793	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Intersection	11:45 AM																
Volume	0	0	0	0	0	0	0	0	0	313	49	362	96	99	0	195	557
Percent	0.0	0.0	0.0		0.0	0.0	0.0		0.0	86.5	13.5		49.2	50.8	0.0		
11:45 Volume	0	0	0	0	0	0	0	0	0	88	12	100	23	32	0	55	155
Peak Factor																	0.898
High Int.									12:00 PM				11:45 AM				
Volume	0	0	0	0	0	0	0	0	0	88	13	101	23	32	0	55	
Peak Factor												0.896				0.886	
Peak Hour From 11:00 AM to 12:45 PM - Peak 1 of 1																	
By Approach	11:00 AM				11:00 AM				11:30 AM				12:00 PM				
Volume	0	0	0	0	0	0	0	0	0	331	42	373	98	106	0	204	
Percent	-	-	-		-	-	-		0.0	88.7	11.3		48.0	52.0	0.0		
High Int.	-				-				12:00 PM				12:45 PM				
Volume	-	-	-	-	-	-	-	-	0	88	13	101	25	39	0	64	
Peak Factor				-				-				0.923				0.797	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Intersection	04:15 PM																
Volume	0	0	0	0	0	0	0	0	0	384	48	432	58	114	0	172	604
Percent	0.0	0.0	0.0		0.0	0.0	0.0		0.0	88.9	11.1		33.7	66.3	0.0		
05:00 Volume	0	0	0	0	0	0	0	0	0	121	16	137	11	40	0	51	188
Peak Factor																	0.803
High Int.									05:00 PM				05:00 PM				
Volume	0	0	0	0	0	0	0	0	0	121	16	137	11	40	0	51	
Peak Factor												0.788				0.843	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																	
By Approach	04:00 PM				04:00 PM				04:15 PM				04:15 PM				
Volume	0	0	0	0	0	0	0	0	0	384	48	432	58	114	0	172	
Percent	-	-	-		-	-	-		0.0	88.9	11.1		33.7	66.3	0.0		
High Int.	-				-				05:00 PM				05:00 PM				
Volume	-	-	-	-	-	-	-	-	0	121	16	137	11	40	0	51	
Peak Factor				-				-				0.788				0.843	

APPENDIX C:

LAND USE DATA AND TRIP GENERATION

Land Use and Trip Generation Detail

Building Pin No.	No. Floors	blockid	First Floor Daily Trips	First Floor AM Peak In	First Floor AM Peak Out	First Floor AM Peak Total	First Floor PM Peak In	First Floor PM Peak Out	First Floor PM Peak Total	Second Floor Daily Trips	Second Floor AM Peak In	Second Floor AM Peak Out	Second Floor AM Peak Total	Second Floor PM Peak In	Second Floor PM Peak Out	Second Floor PM Peak Total	Third Floor Daily Trips	Third Floor AM Peak In	Third Floor AM Peak Out	Third Floor AM Peak Total	Third Floor PM Peak In	Third Floor PM Peak Out	Third Floor PM Peak Total	Second Floor Office Daily Trips	Second Floor Office AM Peak In	Second Floor Office AM Peak Out	Second Floor Office AM Peak Total	Second Floor Office PM Peak In	Second Floor Office PM Peak Out	Second Floor Office PM Peak Total
375907587613	1	110																													
375925589950	1	110																													
375925598214	1	108																													
375925598373	1	108																													
375925599575	1	108																													
375925690159	2	108	856	63	69	132	23	33	56	242	2	10	12	19	9	28								70	9	1	10	2	8	10
375925690259	2	108	373	28	30	58	10	14	24	182	1	6	7	15	8	23								31	4	1	5	1	3	4
375925690273	2	108	306	23	25	47	8	12	20	170	1	5	6	15	7	22								25	3	0	3	1	3	4
375925690450	2	108	50	4	4	8	1	2	3	140	1	3	4	13	6	19															
375925690489	1	108	46	3	4	7	1	2	3																						
375925690674	2	105	168	12	13	26	5	6	11	152	1	4	5	14	7	20								14	2	0	2	0	2	2
375925690698	2	105	218	16	18	34	6	8	14	158	1	4	5	14	7	21								18	2	0	2	0	2	2
375925690803	2	105								140	1	3	4	13	6	19															
375925690930	2	105								194	1	7	8	16	8	24															
375925691228	2	108	93	7	7	14	3	4	6	146	1	4	4	13	7	20								8	1	0	1	0	1	1
375925691341	2	108	249	18	20	38	7	10	16	164	1	5	6	14	7	21								20	3	0	3	0	2	2
375925691367	2	108								170	1	5	6	15	7	22															
375925691471	2	108								158	1	4	5	14	7	21															
375925691495	2	108								158	1	4	5	14	7	21															
375925691701	2	105	127	9	10	20	3	5	8	152	1	4	5	14	7	20								10	1	0	1	0	1	1
375925691726	2	105	118	9	9	18	3	5	8	146	1	4	4	13	7	20								10	1	0	1	0	1	1
375925691729	2	105								146	1	4	4	13	7	20															
375925691831	2	105								146	1	4	4	13	7	20															
375925691845	1	105	79	6	6	12	2	3	5																						
375925691856	2	105								158	1	4	5	14	7	21															
375925691970	2	105	135	10	11	21	4	5	9	152	1	4	5	14	7	20								11	1	0	1	0	1	1
375925692500	2	108								164	1	5	6	14	7	21															
375925692913	1	105	46	3	4	7	1	2	3																						
375925692938	1	105																													
375926692538	2	106								158	1	4	5	14	7	21															
375926692641	2	106	110	8	9	17	3	4	7	146	1	4	4	13	7	20								9	1	0	1	0	1	1
375926692655	2	106	213	16	17	33	6	8	14	158	1	4	5	14	7	21								17	2	0	2	0	2	2
375926692669	2	106								158	1	4	5	14	7	21															
375926692782	2	106								152	1	4	5	14	7	20															
375926692785	2	106								152	1	4	5	14	7	20															
375926692797	2	106								152	1	4	5	14	7	20															
375926693709	2	106								146	1	4	4	13	7	20															
375926693812	2	106								152	1	4	5	14	7	20															
375926693837	2	106								176	1	6	7	15	7	23															
375967194500	1	220																													
375968107500	1	218	10	1	1	1	0	0	1																						
375968111500	1	218	163	12	13	25	4	6	11																						
375968139800	1	218	30	2	2	5	1	1	2																						
375968210000	1	218	97	7	8	15	3	4	6																						
375968245400	1	113	48	4	4	7	1	2	3																						
375968259400	1	113																													
375968341700	1	113																													
375968499500	1	112	258	19	21	40	7	10	17																						
375969402000	1	112	37	3	3	6	1	1	2																						
375969439000	2	109	158	12	13	24	4	6	10	152	1	4	5	14	7	20								13	2	0	2	0	1	1
375969512400	1	109	168	12	13	26	5	6	11																						
375969515100	1	109	84	6	7	13	2	3	6																						
375969516700	1	109	55	4	4	9	1	2	4																						
375969528700	1	109	143	11	11	22	4	6	9																						
375969531400	2	109	207	15	17	32	6	8	14	158	1	4	5	14	7	21								17	2	0	2	0	2	2
375969532900	2	109	148	11	12	23	4	6	10	152	1	4	5	14	7	20								12	2	0	2	0	1	1
375969543200	2	109	120	9	10	19	3	5	8	146	1	4	4	13	7	20								10	1	0	1	0	1	1
375969549600	2	109								176	1	6	7	15	7	23															
375969558900	3	107								111	13	2	14	14	69	84	158	1	4	5	14	7	21								
375969631800	3	109	194	14	16	30	5	7	13	70	8	1	9	14	68	82	182	1	6	7	15	8	23								
375969656600	2	107								176	1	6	7	15	7	23															
375969660700	1	107	272	20	22	42	7	10	18																						
375969669400	2	107	125	9	10	19	3	5	8	152	1	4	5	14	7	20								10	1	0	1	0	1	1
375969672000	3	107	223	17	18	34	6	9	15	79	9	1	10	14	68	82	146	1	4	4	13	7	20								
375969672300	3	107	207	15	17	32	6	8	14	74	8	1	9	14	68	82	146	1	4	4	13	7	20								
375969673500	2	107	88	6	7	14	2	3	6	146	1	4	4	13	7	20															
375969674800	2	107								146	1	4	4	13	7	20															
375969685100	2	107								146	1	4	4	13	7	20															
375969686300	2	107	102	8	8	16	3	4	7	146	1	4	4	13	7	20								8	1	0	1	0	1	1
375969687800	2	107								140	1	3	4	13	6	19															
375969687900	2	107								140	1	3	4	13	6	19															
375969698200	2	107	159	12	13	24	4	6	10	152	1	4	5	14	7	20								13	2	0	2	0	1	1
375969760600	2	107	73	5	6	11	2	3	5	140	1	3	4	13	6	19															
375969761800	2	107								146	1	4	4	13	7	20															
375969891600	3	107	149	11	12	23	4	6	10	58	6	1	7	14	67	81	170	1	5	6	15	7	22								
375979494600	1	112																													
385019600073	1	105																													
385019601041	1	105	274	20	22	42	7	11	18																						
385019602679	2	103	176	13	14	27	5	7	12	158	1	4	5	14	7	21								14	2	0	2	0	2	2
385019602727	1	103																													

Land Use and Trip Generation Detail

Building Pin No.	No. Floors	blockid	First Floor Daily Trips	First Floor AM Peak In	First Floor AM Peak Out	First Floor AM Peak Total	First Floor PM Peak In	First Floor PM Peak Out	First Floor PM Peak Total	Second Floor Daily Trips	Second Floor AM Peak In	Second Floor AM Peak Out	Second Floor AM Peak Total	Second Floor PM Peak In	Second Floor PM Peak Out	Second Floor PM Peak Total	Third Floor Daily Trips	Third Floor AM Peak In	Third Floor AM Peak Out	Third Floor AM Peak Total	Third Floor PM Peak In	Third Floor PM Peak Out	Third Floor PM Peak Total	Second Floor Office Daily Trips	Second Floor Office AM Peak In	Second Floor Office AM Peak Out	Second Floor Office AM Peak Total	Second Floor Office PM Peak In	Second Floor Office PM Peak Out	Second Floor Office PM Peak Total
385019603501	2	103	779	58	63	120	21	30	51	230	2	9	11	18	9	27								64	8	1	9	1	7	8
385060704800	1	104																													
385060711000	2	104								158	1	4	5	14	7	21															
385060714400	1	107	35	3	3	5	1	1	2																						
385060714700	1	104	129	10	10	20	3	5	8																						
385060716000	1	104	66	5	5	10	2	3	4																						
385060718000	1	104	113	8	9	17	3	4	7																						
385060729000	2	104	322	24	26	50	9	12	21	176	1	6	7	15	7	23								26	3	0	3	1	3	4
385060800900	1	104	93	7	7	14	2	4	6																						
385060803800	1	104																													
385060805800	2	104	93	7	7	14	2	4	6	146	1	4	4	13	7	20								8	1	0	1	0	1	1
385060813500	1	104	80	6	6	12	2	3	5																						
385060815300	2	104	11	1	1	2	0	0	1	134	1	3	3	13	6	19															
385060820300	2	104	150	11	12	23	4	6	10	152	1	4	5	14	7	20								12	2	0	2	0	1	1
385060821800	2	104								140	1	3	4	13	6	19															
385060866200	1	104																													
385060918100	1	117	97	7	8	15	3	4	6																						
385070015800	1	117	267	20	21	41	7	10	17																						
385070224900	2	118								200	1	7	9	17	8	25															
385070237900	1	118																													
385070249400	1	118																													
385070258200	1	118	74	5	6	11	2	3	5																						
385070325500	1	118	601	45	48	93	16	23	39																						
385070351100	1	118	99	7	8	15	3	4	6																						
385070441100	1	118																													
385070444700	1	118																													
385082603095	2	103								152	1	4	5	14	7	20															
385082603130	1	103																													
385082603160	2	103	178	13	14	27	5	7	12	158	1	4	5	14	7	21								15	2	0	2	0	2	2
385082604101	2	103								152	1	4	5	14	7	20															
385082604113	1	103	47	3	4	7	1	2	3																						
385082604115	1	103	50	4	4	8	1	2	3																						
385082604117	1	103																													
385082604118	1	103																													
385082604221	2	103								146	1	4	4	13	7	20															
385082604245	2	103	83	6	7	13	2	3	5	146	1	4	4	13	7	20															
385082604247	2	103								146	1	4	4	13	7	20															
385082604350	1	103	289	21	23	45	8	11	19																						
385082605882	1	101																													
385082606735	1	101																													
385082606962	1	101	114	8	9	18	3	4	7																						
385082616040	1	101	147	11	12	23	4	6	10																						
387620806017	1	112	42	3	3	6	1	2	3																						
114_115_116(sum)	0	114_115_116_sum	510	6	29	34	35	17	53																						

APPENDIX D:

SYNCHRO ANALYSIS OUTPUT

ALL SYNCHRO ANALYSIS FILES ARE INCLUDED IN ELECTRONIC FORMAT ON THE CD-ROM THAT ACCOMPANIES THIS REPORT DOCUMENT.

APPENDIX E:

PUBLIC MEETING NOTES

Martin
Alexiou
Bryson

Transportation Planning
Traffic Engineering

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ROCKY MOUNT
DOWNTOWN CIRCULATION STUDY

November 4, 2004
Downtown Stakeholders Meeting

Attendees

Listing of stakeholders in attendance is attached.

Ann Wall	City of Rocky Mount
Jonathan Boone	City of Rocky Mount
Jerry Pierce	City of Rocky Mount
Jody Lewis	Martin/Alexiou/Bryson, PLLC
Brian Wert	Martin/Alexiou/Bryson, PLLC

Jonathan Boone opened the meeting with an introduction and a presentation on the background and status of the traffic circulation study. Jody Lewis then gave a presentation on the work Martin/Alexiou/Bryson (M/A/B) had completed on the Downtown Circulation Study. Mr. Lewis' presentation focused on scenario development.

In response to the possible cross sections shown in the presentation by Mr. Lewis it was asked if all travel lanes would be kept as travel lanes. Mr. Lewis stated that the cross sections shown were only intended to show possible intersection treatments. Mid-block locations would retain on-street parking where possible.

Stakeholders also commented in response to the cross sections that there was no need to provide on-street parking on Franklin Street. Suburban type redevelopment had occurred along this corridor and plenty of parking was available in off-street locations to service businesses. Mr. Lewis pledged to examine this further to better gauge the need of on-street parking on Franklin Street.

Some stakeholders questioned to the scope of the Downtown Circulation Study. Many attendees were curious why the study limits encompassed all of downtown while the focus of redevelopment was a four-block portion of Main Street. Mr. Boone stated that this was to allow the council to examine all effects of making changes to the street network. Changes to the street network will not merely have affects at a given point but affect entire corridors and traffic patterns.

Some stakeholders questioned why the scenarios being presented did not consider Sunset Avenue and Thomas Street for conversion to two-way traffic. Mr. Lewis stated that in his professional opinion he believed that Thomas and Sunset would carry too much traffic in 2025 to be converted to two-way streets within the current street cross-section. Mr. Lewis stated that it was within the project scope that those streets could still be included in the scenarios and that

feedback from the meeting would be taken into consideration in the development of the final analysis scenarios.

Some stakeholders were skeptical of traffic volume projections, questioning the projected increase in through traffic in the downtown. Additionally they suggested that converting Thomas and Sunset to two-way facilities would push through traffic to Grand Avenue and could benefit the redevelopment of the Douglas Block. This would help in changing the character of downtown streets from thoroughfares to local streets.

There was strong desire from the downtown stakeholders to see the study expanded to include examining the effects of closing the Goldleaf Street and Bassett Street rail crossings. Mr. Boone stated that the consultants were directed by city council to examine only the rail crossings stated in the scope. Mr. Boone also stated that the traffic volumes and patterns on Goldleaf were such that the "No Build" analysis that the consultants would conduct would capture the effects of closing the Goldleaf Street crossing. City Council would take this in to account when making any decision based on the results of the M/A/B study.

In comparing the closure of the Western Avenue/Hill Street rail crossing to the closure of the Nash Street /Marigold Street rail crossing, some stakeholders preferred closing the Western Avenue/Hill Street rail crossing. The feeling was that if the Nash Street /Marigold Street rail crossing were closed, then the rail operators would allow trains to stop as far back as the Western Avenue/Hill Street rail crossing. This would prevent pedestrian traffic from crossing at the Nash Street /Marigold Street crossing.

Some of the stakeholders expressed a desire to retain the current one-way operation on Main Street. One concern raised was that converting portions of Main Street to two-way operation might require removing angled parking. Many of the downtown stakeholders expressed an aversion to converting angled parking to parallel parking. Mr. Lewis commented that the impact on existing parking is one of the factors under consideration when assessing the feasibility of converting streets to two-way operation.

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Alexiou
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ROCKY MOUNT
DOWNTOWN CIRCULATION STUDY

November 9, 2004
Planning Board Work Session

Attendees

Members of the Planning Board were present.

Jonathan Boone	City of Rocky Mount
Jerry Pierce	City of Rocky Mount
Bob League	City of Rocky Mount
Ann Wall	City of Rocky Mount
Charles Penny	City of Rocky Mount
Peter Varney	City of Rocky Mount
Jody Lewis	Martin/Alexiou/Bryson, PLLC (M/A/B)
Brian Wert	Martin/Alexiou/Bryson, PLLC (M/A/B)

Jonathan Boone opened the meeting with an introduction and a presentation on the background and status of the traffic circulation study. Jody Lewis then gave a presentation on the work Martin/Alexiou/Bryson (M/A/B) had completed on the Downtown Circulation Study. Mr. Lewis' presentation focused on scenario development.

In response to the possible cross sections shown in the presentation by Mr. Lewis it was asked why, if parking could be possible on Franklin Street in the future, was there not on-street parking on Franklin Street today. Mr. Lewis stated that he was not privy to the discussions that led to that decision but offered that perhaps at some point capacity consideration required three travel lanes for traffic. Jerry Pierce pointed out that in the meeting with the Downtown Stakeholders on November 4th it was stated that development on Franklin Street was more suburban in nature with sufficient off-street parking. Mr. Lewis stated that the intent of the possible cross-sections being shown was to indicate areas where the City could increase the inventory of on-street parking should the demand ever be realized.

Some members of the Planning Board questioned what the benefits were of closing a rail crossing. Mr. Boone stated that beyond safety there was little immediate benefit to closing one rail crossing. The benefits to closing multiple crossings, as is the case in Rocky Mount, is that system wide safety can be greatly increased as more attention and funding can be given to the rail crossings that do remain open. Completion of the Traffic Separation Study also guarantees that the City will receive a higher priority in terms of disbursement of state and federal funding for rail crossing safety improvement and mitigation projects.

It was asked by a member of the Planning Board how many crossings the City of Rocky Mount had closed and how many more the City had agreed to close. Mr. Boone stated that the City

has agreed to eight crossing closures and that one more crossing was yet to be identified. M/A/B's role in the Downtown Circulation Study was to evaluate the feasibility of closing either the Nash/Marigold or the Hill/Western crossing.

A member of the Planning Board asked if there were studies available that predicted a probable economic benefit to a downtown region if one-way streets were converted to two-way streets. Mr. Boone stated it was likely that studies could be found that indicated an economic benefit and some that predicted no benefit. Mr. Boone stated that Jim Prost of Basile Baumann Prost and Associates was under contract to provide economic predictions specific to Rocky Mount.

Another member of the Planning Board asked if there were any studies examining burying the railroad tracks. Mr. Boone stated there was a study that examined elevating and/or re-routing the railroad tracks. Both scenarios are considered to be financially prohibitive.

A member of the Planning Committee stated that he had heard from visitors that the current downtown street network was difficult to navigate given the predominance of one-way streets. Additionally he stated that the network in its current form was designed to move people across downtown and not to bring people to downtown.

The following suggestions were then offered as possible revisions to the scenarios presented by Mr. Lewis:

- Examine converting Thomas Street from Raleigh Street to the rail tracks to two-way operations
- Examine converting Tarboro Street from Atlantic to George to two-way operations
- Examine converting Main Street south of Nash Street to two-way operations
- Examine closing the Goldleaf crossing and converting Thomas Street to two-way if given direction from the City Council
- Converting only one street to two-way operations is believed to have little to no benefit to the Main Street corridor
- Converting Thomas Street to two-way operations would allow traffic from the north to travel follow Peachtree Street to Franklin Street to Thomas Street to get to the Main Street corridor. This is viewed as more direct to the Main Street corridor than the current scenario that requires a more circuitous route because of the one-way operation of streets in the downtown area.
- Closing the Nash Street/Marigold Street rail crossing will prevent vehicles from using NW/SW Main Street, Nash Street/Marigold Street, NE/SE Main Street, and Thomas Street as a "loop" around downtown
- Converting Franklin Street and Church Street to two-way operations will have little impact on the economic viability of the Main Street corridor

Mr. Lewis pledged to examine these suggestions as scenario development continued.

It was asked if Basset Street had been considered for closing. Mr. Boone responded that emergency responders had intimated to the City that the it was necessary for the Basset Street crossing to remain open to ensure prompt response times to emergency situations.

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ROCKY MOUNT
DOWNTOWN CIRCULATION STUDY

November 11, 2004
Stakeholders Meeting

Attendees

Listing of stakeholders in attendance is attached.

Jonathan Boone	City of Rocky Mount
Bob League	City of Rocky Mount
Peter Varney	City of Rocky Mount
Jody Lewis	Martin/Alexiou/Bryson, PLLC (M/A/B)
Brian Wert	Martin/Alexiou/Bryson, PLLC (M/A/B)

Jonathan Boone opened the meeting with an introduction and a presentation on the background and status of the Downtown Circulation Study. Jody Lewis then gave a presentation on the work Martin/Alexiou/Bryson (M/A/B) had completed on the Downtown Circulation Study. Mr. Lewis' presentation focused on scenario development.

A stakeholder offered the following comments:

- Closing either the Nash Street/Marigold Street or Hill Street/Western Avenue rail crossing is likely to reduce the number of people who come to downtown.
- Converting one-way streets to two-way operation will increase the vehicle queue length when vehicles are stopped awaiting trains to pass through downtown. The high train traffic will increase the chance that queue lengths will extend to Atlantic Avenue and that stopped motorists will use Atlantic Avenue to bypass the downtown all together.

Many of the stakeholders present questioned why any of the rail crossings downtown should be closed. Stakeholders then suggested that if a crossing were to be closed it would be more prudent in their opinion to close either the Goldleaf Street crossing or the Basset Street crossing. Stakeholders asked why the Nash Street/Marigold Street and the Western Avenue/Hill Street crossings were targeted. Jonathan Boone responded that the scope for the project limited the crossings that could be examined. Mr. Boone further intimated that the scope could possibly change based on public comments being gathered.

Many stakeholders present expressed a concern that closing either the Nash Street/ Marigold Street rail crossing or the Western Avenue/Hill Street rail crossing will have a negative affect on traffic on Main Street. This could be particularly acute to properties on the Edgecombe side of Main Street, severely decreasing the attractiveness of property on that side of Main Street.

A stakeholder questioned what had precipitated the Downtown Circulation Study, and what council was beholden to do upon its completion. Mr. Boone responded that the Downtown

Circulation Study was developed to study issues that had been raised as part of the Traffic Separation Study as well as other issues that had been discussed for years prior such as converting some of the downtown one-way streets to two-way operation. Mr. Boone further stated that City Council had the option to do nothing.

Another stakeholder inquired if rail crossings were closed would the city be able to leverage any additional funds. Mr. Boone responded that City Council would likely enter into resolutions with the NCDOT for additional mitigation projects and/or funding once a candidate for closure was identified. The stakeholder responded that the additional funding would not offset the effects of closing a rail crossing.

The stakeholders then inquired as to the number of crossings closed. Mr. Boone stated that 8 crossings had been identified for closure within the city limits and that the Downtown Circulation Study was to examine the feasibility and impact of closing one of the rail crossings in the downtown area.

Stakeholders were curious as to the economic impacts a rail crossing may have on the Main Street corridor. Mr. Boone stated that Jim Prost of Basile Baumann Prost and Associates is to examine the economic impacts of the scenarios M/A/B would develop. The members of the audience stated they would like to have more contact with Mr. Prost. Jody Lewis offered to provide Jim Prost with the contact information of all stakeholders present.

Stakeholders were particularly concerned that closing rail crossings would end the “quick trips” between stores. Many businesses in the downtown attract patrons when they stop to go to other stores. The audience expressed a fear that closing rail crossings would make those trips prohibitively long.

Stakeholders asked about scenarios with no closings and scenarios with only one-way to two-way conversions. Mr. Lewis stated that the “No Build” scenario would have no crossing closures and that if warranted one scenario could examine converting one-way streets to two-way operation and not closing any rail crossings.

Some stakeholders suggested that Main Street could be converted to two-way operation on both sides of the railroad tracks like it was in the past. Mr. Boone stated this would have a negative affect on traffic operations and traffic signal preemption for trains. Mr. Lewis also stated that two-way conversion on both sides of Main Street would likely require the removal of all angled parking leaving parallel parking as the only on-street parking option. Parallel parking was considered by most stakeholders present to be detrimental to business.

The stakeholders expressed strong support for the conversion of Church Street and Franklin Street to two-way operation. The audience stated that given the two-way sections on either side of downtown converting these facilities to two-way operation in the downtown area would be logical and would make traffic movements easier. Additionally, many members stated that Church Street and Franklin Street were excellent entrances into the downtown and converting these facilities to two-way operation would be very helpful to revitalizing Main Street.

One stakeholder stated repeatedly that “the cheapest thing to do was to do nothing.” This stakeholder further suggested that any additional funds that were acquired be spent on projects other than changing the road network in downtown. In his opinion, the street network in downtown worked fine.

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ROCKY MOUNT
DOWNTOWN CIRCULATION STUDY

February 8, 2005
Planning Board Work Session

Attendees

Josh Munden	City of Rocky Mount (Planning Board Chairman)
Joseph Ray, Sr.	City of Rocky Mount (Planning Board Vice-Chairman)
Keith Ballentine	City of Rocky Mount (Planning Board)
Steve Evans	City of Rocky Mount (Planning Board)
Ken Moorefield	City of Rocky Mount (Planning Board)
Gordon Bunn	Edgecombe County (Planning Board)
Winslow Goins	Edgecombe County (Planning Board)
Charles Lewis	Edgecombe County (Planning Board)
Bobbie Clark	Nash County (Planning Board)
Wayne Hill	Nash County (Planning Board)
Ken Graves	City of Rocky Mount (Planning Staff)
Denise Boswell	City of Rocky Mount (Planning Staff)
Adam Cook	City of Rocky Mount (Planning Staff)
Ann Wall	City of Rocky Mount (Planning Staff)
Jonathan Boone	City of Rocky Mount
Jerry Pierce	City of Rocky Mount
Jody Lewis	Martin/Alexiou/Bryson, PLLC (M/A/B)
Brian Wert	Martin/Alexiou/Bryson, PLLC (M/A/B)

The purpose of the meeting was to present the preliminary analysis results to the planning board members during their customary work session in order to gather initial reaction and feedback on the results.

Jonathan Boone opened the meeting with general comments on the status of the study. Jonathan indicated that three meetings had been convened and that public comments have been received. These comments lead to the development of the five scenarios analyzed as part of the circulation study. Jonathan then turned to Jody Lewis to present the preliminary findings and the anticipated impacts that have thus far been determined.

Jody presented the preliminary findings. The analyses indicated that the existing signalized intersections in the study area are all operating at acceptable level of service (LOS). Traffic crossing the railroad tracks is expected to increase significantly. The analyses indicated that the combination of the increased peak hour traffic and the conversion of one-way streets to two-way operation significantly impacted traffic operations at the rail crossings.

When asked about a final recommendation, Jody and Jonathan responded that emergency vehicle travel times, economic impacts and costing of the various alternatives were yet to be analyzed. When those aspects had been analyzed in conjunction with the preliminary traffic findings, the city council will make a final recommendation.

Members of the planning board were curious about the level of traffic analysis that had been completed. Specifically, they inquired if the additional accessibility gained by changing streets from one-way to two-way operation would make up for the lost mobility caused by new, less efficient signal phasing and the closing of one rail crossing. Jody stated that there had been no analysis completed based on travel times. Additionally, Jody stated that as part of the study no trip diversion around downtown as a result of increased congestion was assumed. This meant that the worst-case situation was analyzed for each scenario. Jody stated that a number of pass-through trips might divert to alternate routes and avoid downtown completely in order to avoid congestion in the downtown area. This could result in an improved level of service at which intersections would operate over those predicted in the analysis. To answer the planning board's question of travel time Jody pledged to examine the results of the Synchro runs further to help estimate travel times in each scenario for a common set of origins and destinations.

Members of the planning board then inquired as to the economic impact of the various scenarios. Jody stated that during project survey interviews the downtown merchants have indicated that most of their customer trips are purposeful trips; meaning the shop patrons are coming specifically to shop in the downtown shops. While congestion effects these trips less than other trips, the precise economic impact of the geographic correlation of the worst performing intersections (the rail crossings) and the major hub of downtown economic activity was not known as of yet. Jim Prost would address this situation specifically in his economic analysis. One member of the planning board offered that given the number of trains that travel through downtown on a daily basis (approximately 40), congestion and delay at the rail crossings are expected by motorists in the area and would not affect commuting patterns as significantly as increased delay at other more typical intersections.

In closing some members of the planning board reiterated their reservations about the study, as it did not include the Basset Street and Goldleaf Street rail crossings. It was the opinion of certain board members that closing either the Basset Street or Goldleaf Street rail crossings would have fewer negative impacts than closing any of the four rail crossings that are currently part of the study. Jonathan reminded the members that an option to expand the study scope to include those rail crossings in the analyses was denied by the City Council.

APPENDIX F:

IMPLEMENTATION